Learning Recovery
Grade 2 Summer Packet

Grade 2 Mission 5 Lessons 1-20 (20 lessons)

Add and Subtract Big Numbers

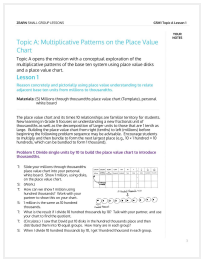
Grade 2 Mission 6 Lessons 1-20 (16 lessons*)

Equal Groups

Students should complete one of the two sections below for each Mission:

Section One
Complete with all digital lessons

- Student Notes
- Exit Tickets



Section Two
If internet access is not available, complete paper-based work

- Problem Sets
- Homework

*Some lessons omitted from Zearn Math's Digital Lesson sequence - visit our Help Center to learn more

Mission 5: Add and Subtract Big Numbers

Section One: Student Notes and Exit Tickets

To complete with all digital lessons

Are you ready to

Mission 5

Add and Subtract Big Numbers

Name:_____

Printed in the U.S.A.

This book may be purchased from the publisher at **zearn.org.**

Fourth Edition

Lesson 1 G:2 M:5	More or Less
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Super J rescued 27 dogs in June. In July, she rescued 11. In August, she rescued 40.

How many dogs did Super J rescue in those 3 months?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

Super J rescued _____ dogs in all.

EXTRA WORKSPACE

Lesson 1 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve using the arrow way.

   a. 440 + 220 = _____

   b. 670 + _____ = 890

   c. _____ + 765 = 945

Lesson 2 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

Solve using place value strategies. Use the arrow way or mental math, and record your answers. You may use scrap paper if you like.

1.

760 – 500 = _____

880 – 600 = _____

990 – _____ = 590

2

534 – 334 = _____

_____ – 500 = 356

736 – _____ = 136

Lesson 3 G:2 M:5	Way? Arrow Way! ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Ms. Joseph and her friends ate 27 blueberries at a picnic. They had 48 left over.

How many blueberries did they start with?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

They started with

_____ blueberries.

2 Complete the arrow way.

ARROW WAY

$$280 \xrightarrow{+\,200} 480 \xrightarrow{+\,20} 500 \xrightarrow{+\,10} \_\_\_\_\_$$

3 Solve.

SHOW YOUR WORK

470 + 200

470 + 210

EXTRA WORKSPACE

Lesson 3 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve each set of problems using the arrow way.

a. 440 + 300

360 + 440

440 + 380

b. 670 + 230

680 + 240

250 + 660

Lesson 4 G:2 M:5	Break It Down
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Ms. Joseph needs 65 sticks to make a magic box. She only has 48.

How many more sticks does she need?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

Ms. Joseph needs _____

more sticks.

2 Complete the arrow way in your notes.

ARROW WAY

780 – 390

780 $\xrightarrow{-300}$ _____ $\xrightarrow{-80}$ _____ $\xrightarrow{-\_\_\_\_}$ _____

3 Solve 440 – 260. Use the subtraction you just did to help.

SHOW YOUR WORK

440 – 260 = _____

EXTRA WORKSPACE

Lesson 4 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve using a simplifying strategy. Show your work if needed.

   830 – 530 = _____

   830 – 750 = _____

   830 – 780 = _____

2. Solve.

   a. 67 tens – 30 tens = _____ tens. The value is _____.

   b. 67 tens – 37 tens = _____ tens. The value is _____.

   c. 67 tens – 39 tens = _____ tens. The value is _____.

Lesson 5 G:2 M:5	Easier Adding
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Solve by using a number bond to make a hundred.

340 + 280 = _____

_____ _____

_____ + _____ = _____

EXTRA WORKSPACE

Lesson 5 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Add by drawing a number bond to make a hundred. Write the simplified number sentence and solve.

   a. 390 + 210 = _____

   _____ _____

   _____ + _____ = _____

   b. 798 + 57 = _____

   _____ _____

   _____ + _____ = _____

2. Solve.

   53 tens + 38 tens = _____

Lesson 6 G:2 M:5	Easier Subtracting
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Maya made 60 cupcakes for the school bake sale. She sold 28 cupcakes on the first day.

How many cupcakes did she have left?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

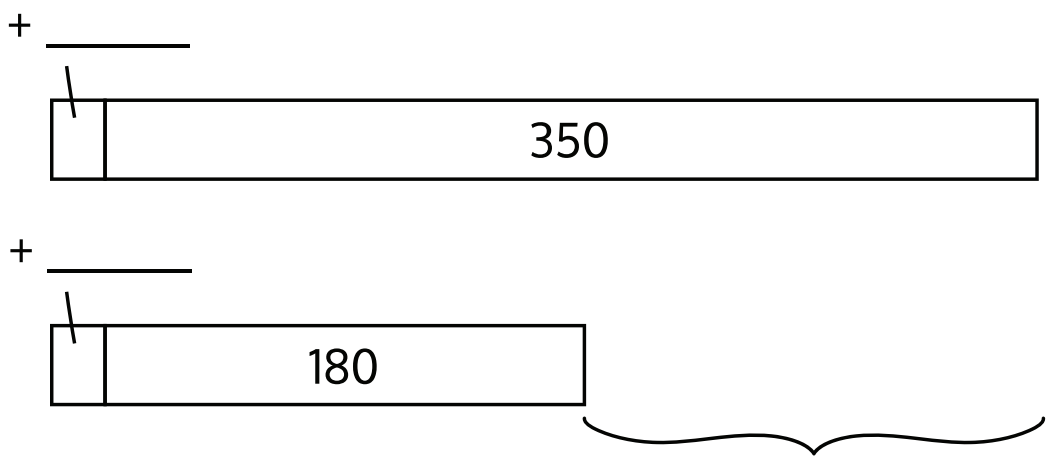
Maya had _____

cupcakes left.

2 What should we add to make this problem easier?

Write a new number sentence and solve.

SHOW YOUR WORK



350 – 180 = _____ = _____

EXTRA WORKSPACE

Lesson 6 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Draw and label a tape diagram to show how to simplify the problem. Write the new equation, and then subtract.

   a. 363 – 198 = _____ = _____

   b. 671 – 399 = _____ = _____

   c. 862 – 490 = _____ = _____

Lesson 7 G:2 M:5	Thousand Strategies
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1 697 + 223

SHOW YOUR WORK

697 + 223 = _____

2 722 – 490

SHOW YOUR WORK

722 – 490 = _____

EXTRA WORKSPACE

Lesson 7 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Circle one of the strategies below, and use the circled strategy to solve 490 + 463.

   a. Arrow way / Number bond

   b. Solve:

   c. Explain why you chose that strategy.

   _____

   _____

   _____

Lesson 8 G:2 M:5	Add Away
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1

200 + 300 = _____

440 + 200 = _____

2

hundreds	tens	ones

$$\begin{array}{r} 211 \\ +\ 95 \\ \hline \end{array}$$

3 What is 211 + 95? Add the hundreds, tens, and ones.

SHOW YOUR WORK

211 + 95

200 + 10 + 1 + 90 + 5

4

hundreds	tens	ones

$$\begin{array}{r} 324 \\ +\ 157 \\ \hline \end{array}$$

EXTRA WORKSPACE

Lesson 8 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve the following problems using your place value chart, place value disks, and vertical form. Bundle a ten or hundred, when necessary.

a. 378 + 113

b. 178 + 141

Lesson 9 G:2 M:5	Double Bundle
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Solve 427 + 385 again using a different strategy to check your work.

SHOW YOUR WORK

2 Does 672 + 249 = 921?

Use any strategy to check your work.

SHOW YOUR WORK

3 Solve 338 + 273

hundreds	tens	ones

$$\begin{array}{r} 338 \\ +\ 273 \\ \hline \end{array}$$

EXTRA WORKSPACE

Lesson 9 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve the following problems using your place value chart, place value disks, and vertical form. Bundle a ten or hundred, when necessary.

a. 375 + 197

b. 184 + 338

Lesson 10 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve using vertical form, and draw disks on a place value chart. Bundle as needed.

a. 436 + 509 = _____

b. 584 + 361 = _____

Lesson 11 G:2 M:5	Math Magic
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Does 342 + 169 = 511?

Use any strategy to check your work.

SHOW YOUR WORK

2

hundreds	tens	ones

$$\begin{array}{r} 545 \\ +\ 278 \\ \hline \end{array}$$

3 Ms. Joseph used 784 magic cards in her first trick and 179 magic cards in her second trick.

How many magic cards did Ms. Joseph use altogether?

YOUR DRAWING

hundreds	tens	ones

YOUR NUMBER SENTENCE

$$\begin{array}{r} 784 \\ +\ 179 \\ \hline \end{array}$$

YOUR WORD SENTENCE

Ms. Joseph used _____

magic cards altogether.

EXTRA WORKSPACE

Lesson 11 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve using vertical form, and draw disks on a place value chart. Bundle as needed.

a. 267 + 356 = _____

b. 623 + 279 = _____

Lesson 12 G:2 M:5	Sum Sharing
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1 374 + 210

ARROW WAY

374 + 210 = _____

ALGORITHM

374 + 210 = _____

2 A park has 298 pine trees and 142 oak trees.

How many trees does the park have?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

The park has _____ trees.

EXTRA WORKSPACE

Lesson 12 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Choose the best strategy and solve. Explain why you chose that strategy.

a. 467 + 298

EXPLANATION

_____

_____

_____

_____

_____

b. 300+ 524

EXPLANATION

Lesson 13 G:2 M:5	Prove It
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1 Add the parts together to see if you get the correct total.

Use any addition strategy.

SHOW YOUR WORK

121 + 123 = _____

2

hundreds	tens	ones

$$\begin{array}{r} 244 \\ -\ 125 \\ \hline \end{array}$$

3

Add 125 + 119 to check your work.

Use any addition strategy.

SHOW YOUR WORK

125 + 119 = _____

EXTRA WORKSPACE

Lesson 13 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

Solve using mental math or vertical form with place value disks. Check your work using addition.

1. 378 – 117 = _____

2. 378 – 119 = _____

3. 853 – 433 = _____

4. 853 – 548 = _____

Lesson 14 G:2 M:5	Subtract and Prove
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1 Add the parts to prove our answer is correct.

Use any addition strategy.

SHOW YOUR WORK

147 + 387 = _____

2 Solve 637 – 253 using disks and the subtraction algorithm.

SHOW YOUR WORK

hundreds	tens	ones

$$\begin{array}{r} 637 \\ -\ 253 \\ \hline \end{array}$$

YOUR NUMBER BOND

YOUR ADDITION SENTENCE

EXTRA WORKSPACE

Lesson 14 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve by drawing place value disks on a chart. Then, use addition to check your work.

a. 375 - 280	Solve vertically or mentally	Check:
b. 741 - 448	Solve vertically or mentally	Check:

Lesson 15 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve by drawing place value disks on a chart. Then, use addition to check your work.

a. 583 - 327 hundreds | tens | ones	Solve vertically or mentally	Check:
b. 721 - 485 hundreds | tens | ones	Solve vertically or mentally	Check:

Lesson 16 G:2 M:5	Smart Strategies
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Maya read 15 more pages than Braydon. Braydon read 38 pages.

How many pages did Maya read?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

2 Add the two parts to see if you got the whole.

SHOW YOUR WORK

231 + 171 = _____

3 Solve 800 – 463 by counting on.

SHOW YOUR WORK

EXTRA WORKSPACE

Lesson 16 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve vertically or using mental math. Draw disks on the place value chart and unbundle, if needed.

   a. 604 – 143 = _____

hundreds	tens	ones

   b. 700 – 568 = _____

hundreds	tens	ones

Lesson 17 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve vertically or using mental math. Draw disks on the place value chart and unbundle, if needed.

   a. 600 – 432 = _____

hundreds	tens	ones

   b. 303 – 254 = _____

hundreds	tens	ones

Lesson 18 G:2 M:5	Multiple Zeros
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Shannon has 300 flowers in her garden. 159 flowers are red, and the rest are yellow.

How many yellow flowers does Shannon have?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

Shannon has _____

yellow flowers.

EXTRA WORKSPACE

Lesson 18 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Choose the best strategy and solve. Explain why you chose that strategy.

a. 400 – 265

EXPLANATION

_____

_____

_____

_____

_____

b. 507 - 198

EXPLANATION

Lesson 19 G:2 M:5	Sum Different Strategies
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1 At the beach, Braydon collected 37 fewer seashells than Maya. Maya collected a total of 48 seashells.

How many seashells did Braydon collect?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

2 180 + 440 = _____

SHOW YOUR WORK

3 400 – 236 = _____

SHOW YOUR WORK

Lesson 19 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Solve and explain why you chose that strategy.

a. 400 + 590 = _____

EXPLANATION

_____

_____

_____

_____

_____

b. 775 - 497 = _____

EXPLANATION

_____

_____

_____

_____

_____

Lesson 20 G:2 M:5	Strategy Selection
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1 499 + 166 = _____

SHOW YOUR WORK

2 546 – 297 = _____

SHOW YOUR WORK

EXTRA WORKSPACE

Lesson 20 G:2 M:5	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

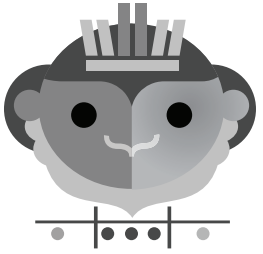
Solve each problem using two different strategies.

1. 299 + 156 = _____

FIRST STRATEGY	SECOND STRATEGY
a.	**b.**

2. 547 + _____ = 841

FIRST STRATEGY	SECOND STRATEGY
a.	b.



Congratulations!

You completed

Grade 2 Mission 5

Add and Subtract Big Numbers

Name

Date

Zearned it!

Mission 5: Add and Subtract Big Numbers

Section Two: Problem Sets and Homework

To complete if internet access is not available

Name _____ Date _____

1. Complete each *more* or *less* statement.

   a. 10 more than 175 is _____.

   b. 100 more than 175 is _____.

   c. 10 less than 175 is _____.

   d. 100 less than 175 is _____.

   e. 319 is 10 more than _____.

   f. 499 is 100 less than _____.

   g. _____ is 100 less than 888.

   h. _____ is 10 more than 493.

   i. 898 is _____ than 998.

   j. 607 is _____ than 597.

   k. 10 more than 309 is _____.

   l. 309 is _____ than 319.

2. Complete each regular number pattern.

   a. 170, 180, 190, _____, _____, _____

   b. 420, 410, 400, _____, _____, _____

   c. 789, 689, _____, _____, _____, 289

   d. 565, 575, _____, _____, _____, 615

   e. 724, _____, _____, _____, 684, 674

   f. _____, _____, _____, 886, 876, 866

3. Complete each statement.

a. 389 $\xrightarrow{+10}$ _____ $\xrightarrow{+100}$ _____

b. 187 $\xrightarrow{-100}$ _____ $\xrightarrow{-10}$ _____

c. 609 $\xrightarrow{-10}$ _____ $\xrightarrow{-\_\_\_\_}$ 499 $\xrightarrow{+10}$ _____ $\xrightarrow{+\_\_\_\_}$ 519

d. 512 $\xrightarrow{-10}$ _____ $\xrightarrow{-10}$ _____ $\xrightarrow{+100}$ _____ $\xrightarrow{+100}$ _____ $\xrightarrow{+10}$ _____

4. Solve using the arrow way.

a. 210 + 130 = _____

b. 320 + _____ = 400

c. _____ + 515 = 735

Name _____ Date _____

1. Solve each addition problem using place value strategies. Use the arrow way or mental math, and record your answers. You may use scrap paper if you like.

   a. 2 hundreds 4 tens + 3 hundreds = _____ hundreds _____ tens

   240 + 300 = _____

   b. 340 + 300 = _____ 140 + 500 = _____ 200 + 440 = _____

   c. 400 + 374 = _____ 274 + 500 = _____ 700 + 236 = _____

   d. 571 + _____ = 871 _____ + 349 = 749 96 + _____ = 696

   e. _____ + 562 = 862 300 + _____ = 783 600 + _____ = 726

2. Solve each subtraction problem using place value strategies. Use the arrow way or mental math, and record your answers. You may use scrap paper if you like.

   a. 6 hundreds 2 ones – 4 hundreds = _____ hundreds _____ tens _____ ones

   602 – 400 = _____

   b. 640 – 200 = _____ 650 – 300 = _____ 750 – _____ = 350

   c. 462 – 200 = _____ 667 – 500 = _____ 731 – 400 = _____

   d. 431 – _____ = 131 985 – _____ = 585 768 – _____ = 68

   e. _____ – 200 = 662 _____ – 300 = 653 734 – _____ =234

3. Fill in the blanks to make true number sentences. Use place value strategies, number bonds, or the arrow way to solve.

   a. 200 more than 389 is _____.

   b. 300 more than _____ is 568.

   c. 400 less than 867 is _____.

   d. _____ less than 962 is 262.

4. Jessica's lemon tree had 526 lemons. She gave away 300 lemons. How many does she have left? Use the arrow way to solve.

Name _____ Date _____

1. Solve each set of problems using the arrow way.

a. 380 + 200 380 + 220 380 + 230
b. 470 + 400 470 + 430 470 + 450
c. 650 + 200 650 + 250 650 + 280
d. 430 + 300 430 + 370 430 + 390

2. Solve using the arrow way or mental math. Use scrap paper if needed.

a. 490 + 200 = _____	210 + 490 = _____	490 + 220 = _____
b. 230 + 700 = _____	230 + 710 = _____	730 + 230 = _____
c. 260 + 240 = _____	260 + 260 = _____	280 + 260 = _____
d. 160 + 150 = _____	370 + 280 = _____	380 + 450 = _____
e. 430 + 290 = _____	660 + 180 = _____	370 + 270 = _____

3. Solve.

a. 66 tens + 20 tens = _____ tens

b. 66 tens + 24 tens = _____ tens

c. 66 tens + 27 tens = _____ tens

d. 67 tens + 28 tens = _____ tens

e. What is the value of 86 tens? _____

Name _____ Date _____

1. Solve using the arrow way.

a. 570 – 200 570 – 270 570 – 290
b. 760 – 400 760 – 460 760 – 480
c. 950 – 500 950 – 550 950 – 580
d. 820 – 320 820 – 360 820 – 390

2. Solve using the arrow way or mental math. Use scrap paper if needed.

a.	530 – 400 = _____	530 – 430 = _____	530 – 460 = _____
b.	950 – 550 = _____	950 – 660 = _____	950 – 680 = _____
c.	640 – 240 = _____	640 – 250 = _____	640 – 290 = _____
d.	740 – 440 = _____	740 – 650 = _____	740 – 690 = _____

3. Solve.

a. 88 tens – 20 tens = _____

b. 88 tens – 28 tens = _____

c. 88 tens – 29 tens = _____

d. 84 tens – 28 tens = _____

e. What is the value of 60 tens? _____

f. What is the value of 56 tens? _____

Name _____ Date _____

1. Solve.

   a. 30 tens = _____

   b. 43 tens = _____

   c. 18 tens + 12 tens = _____ tens

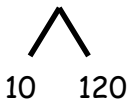
   d. 18 tens + 13 tens = _____ tens

   e. 24 tens + 19 tens = _____ tens

   f. 25 tens + 29 tens = _____ tens

2. Add by drawing a number bond to make a hundred. Write the simplified equation and solve.

   a. 190 + 130

   200 + 120 = _____

   b. 260 + 190

   _____ = _____

   c. 330 + 180

   _____ = _____

d. 440 + 280

_____ = _____

e. 199 + 86

_____ = _____

f. 298 + 57

_____ = _____

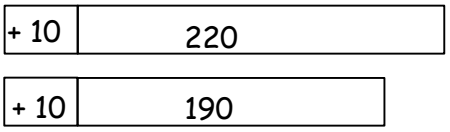
g. 425 + 397

_____ = _____

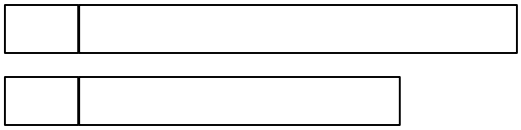
Name _____ Date _____

1. Draw and label a tape diagram to show how to simplify the problem. Write the new equation , and then subtract.

   a. 220 – 190 = 230 – 200 = _____



   b. 320 – 190 = _____ = _____



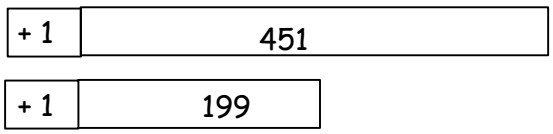
   c. 400 – 280 = _____ = _____

   d. 470 – 280 = _____ = _____

   e. 530 – 270 = _____ = _____

2. Draw and label a tape diagram to show how to simplify the problem. Write a new equation, and then subtract. Check your work using addition.

a. 451 – 199 = 452 – 200 = _____

	Check:

b. 562 – 299 = _____ = _____

	Check:

c. 432 – 298 = _____ = _____

	Check:

d. 612 – 295 = _____ = _____

	Check:

Name _____ Date _____

1. Circle the student work that shows a *correct* solution to 543 + 290.

543 + 290 = 533 + 300 = 833 533 ^ 10	Explain the mistake in any of the incorrect solutions. _____ _____ _____ _____ _____
543 + 290 = 553 + 300 = 853 +10 543 +10 290	
543 +200→ 743 +60→ 803 +30→ 833	

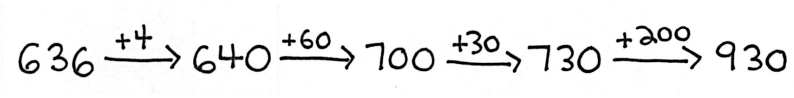
2. Circle the student work that *correctly* shows a strategy to solve 721 – 490.

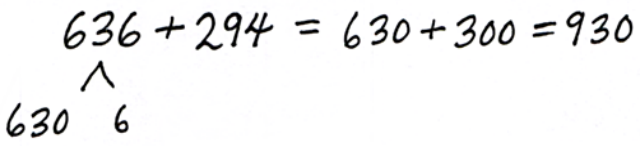
721 – 490 = 711 – 500 = 211
711 ^ 10

+10 721
+10 490
731 – 500 = 231

Fix the work that is *incorrect* by making a new drawing in the space below with a matching number sentence.

3. Two students solved 636 + 294 using two different strategies.





Explain which strategy would be easier to use when solving and why.

4. Circle one of the strategies below, and use the circled strategy to solve 290 + 374.

a.	b. Solve:
arrow way / number bond	

c. Explain why you chose that strategy.

Name _____ Date _____

1. Solve the following problems using your place value chart, place value disks, and vertical form. Bundle a ten or hundred, when necessary.

a. 301 + 49	b. 402 + 48
c. 315 + 93	d. 216 + 192
e. 545 + 346	f. 565 + 226
g. 222 + 687	h. 164 + 745

2. Solve.

a. 300 + 200 = _____

b. 320 + 200 = _____

c. 320 + 230 = _____

d. 320 + 280 = _____

e. 328 + 286 = _____

f. 600 + 80 = _____

g. 600 + 180 = _____

h. 620 + 180 = _____

i. 680 + 220 = _____

j. 680 + 230 = _____

Name _____ Date _____

1. Solve the following problems using place value disks, a place value chart, and vertical form.

a. 417 + 293	b. 526 + 185
c. 338 + 273	d. 625 + 186
e. 250 + 530	f. 243 + 537
g. 376 + 624	h. 283 + 657

2. Solve.

a. 270 + 430 = _____

b. 260 + 440 = _____

c. 255 + 445 = _____

d. 258 + 443 = _____

e. 408 + 303 = _____

f. 478 + 303 = _____

g. 478 + 323 = _____

Name _____ Date _____

1. Solve using vertical form, and draw chips on the place value chart. Bundle as needed.

hundreds	tens	ones

a. 117 + 170 = _____

hundreds	tens	ones

b. 217 + 173 = _____

hundreds	tens	ones

c. 371 + 133 = _____

hundreds	tens	ones

d. 504 + 269 = _____

2. Solve using vertical form, and draw chips on a place value chart. Bundle as needed.

   a. 546 + 192 = _____

   b. 546 + 275 = _____

Name _____ Date _____

1. Solve using vertical form, and draw chips on the place value chart. Bundle as needed.

hundreds	tens	ones

a. 227 + 183 = _____

hundreds	tens	ones

b. 424 + 288 = _____

hundreds	tens	ones

c. 638 + 298 = _____

hundreds	tens	ones

d. 648 + 289 = _____

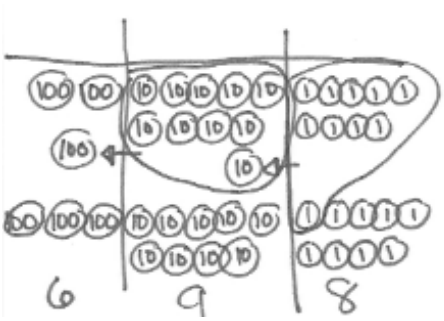
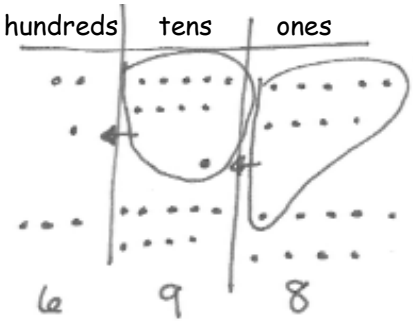
2. Solve using vertical form, and draw chips on a place value chart. Bundle as needed.

   a. 307 + 187

   b. 398 + 207

Name _____ Date _____

1. Tracy solved the problem 299 + 399 four different ways.

299 +1→ 300 +98→ 398 +300→ 698	299 + 399 298 1 298 + 400 = 698
	

Explain which strategy is most efficient for Tracy to use and why.

_____

_____

_____

_____

_____

2. Choose the best strategy and solve. Explain why you chose that strategy.

a. 221 + 498	Explanation: _____ _____ _____ _____
b. 467 + 200	Explanation: _____ _____ _____ _____
c. 378 + 464	Explanation: _____ _____ _____ _____

Name _____ Date _____

1. Solve using mental math.

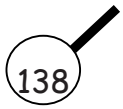
   a. 8 – 6 = _____ 80 – 60 = _____ 180 – 60 = _____ 180 – 59 = _____

   b. 6 – 3 = _____ 60 – 30 = _____ 760 – 30 = _____ 760 – 28 = _____

2. Solve using mental math or vertical form with place value disks. Check your work using addition.

   a. 138 – 17 = 121

   b. 138 – 19 = _____



138	121
–17	+ 17
121	138

   c. 445 – 35 = _____

   d. 445 – 53 = _____

e. 863 – 170 = _____

f. 845 – 152 = _____

g. 472 – 228 = _____

h. 418 – 274 = _____

i. 567 – 184 = _____

j. 567 – 148 = _____

Name _____ Date _____

1. Solve by drawing place value disks on a chart. Then, use addition to check your work.

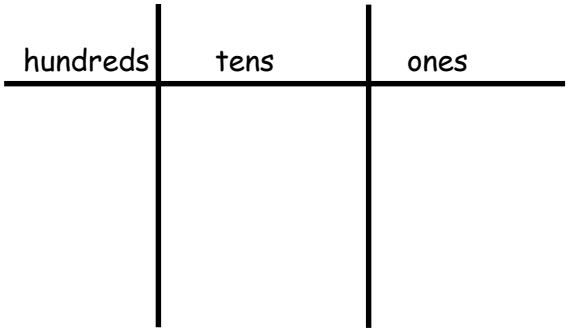
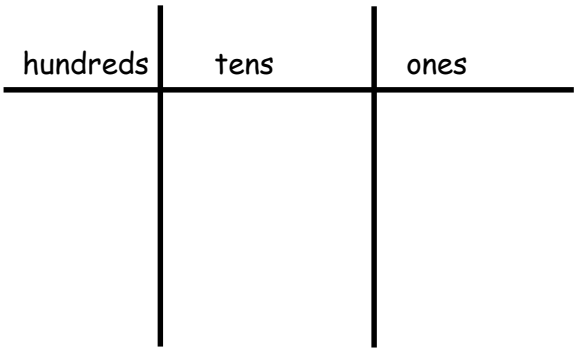
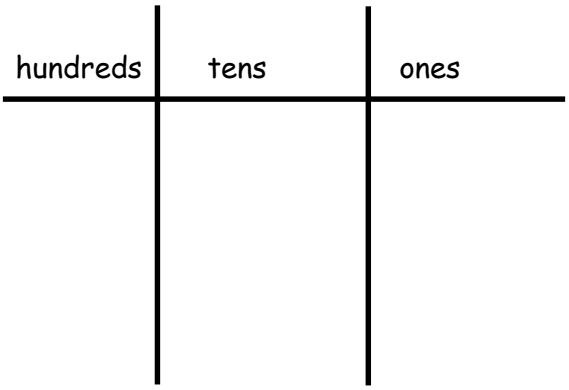
a. 469 – 170	Solve vertically or mentally:	Check:
b. 531 – 224	Solve vertically or mentally:	Check:
c. 618 – 229	Solve vertically or mentally:	Check:

d. 838 – 384	Solve vertically or mentally:	Check:
e. 927 – 628	Solve vertically or mentally:	Check:

2. If 561 – 387 = 174, then 174 + 387 = 561. Explain why this statement is true using numbers, pictures, or words.

Name _____ Date _____

1. Solve by drawing chips on the place value chart. Then, use addition to check your work.

a. 699 – 210 	Solve vertically or mentally:	Check:
b. 758 – 387 	Solve vertically or mentally:	Check:
c. 788 – 299 	Solve vertically or mentally:	Check:

Modified from original

d. 821 – 523 hundreds | tens | ones	Solve vertically or mentally:	Check:
e. 913 – 558 hundreds | tens | ones	Solve vertically or mentally:	Check:

2. Complete all of the *if…then* statements. Draw a number bond to represent the related facts.

   a. If **762** – _____ = **173**, then **173** + **589** = _____.

   b. If **631** – _____ = **273**, then _____ + **273** = **631**.

Name _____ Date _____

1. Solve vertically or using mental math. Draw chips on the place value chart and unbundle, if needed.

a. 304 – 53 = _____

hundreds	tens	ones

b. 406 – 187 = _____

hundreds	tens	ones

c. 501 – 316 = _____

hundreds	tens	ones

d. 700 – 509 = _____

hundreds	tens	ones

e. 900 – 626 = _____

hundreds	tens	ones

2. Emily said that 400 – 247 is the same as 399 – 246. Write an explanation using pictures, numbers, or words to prove Emily is correct.

Name _____ Date _____

1. Solve vertically or using mental math. Draw chips on the place value chart and unbundle, if needed.

a. 200 – 113 = _____

hundreds	tens	ones

b. 400 – 247 = _____

hundreds	tens	ones

c. 700 – 428 = _____

hundreds	tens	ones

d. 800 – 606 = _____

hundreds	tens	ones

e. 901 – 404 = _____

hundreds	tens	ones

2. Solve 600 – 367. Then, check your work using addition.

Solution:	Check:

Name _____ Date _____

1. Use the arrow way and counting on to solve.

a. 300 – 247	b. 600 – 465

2. Solve vertically, and draw a place value chart and chips. Rename in one step.

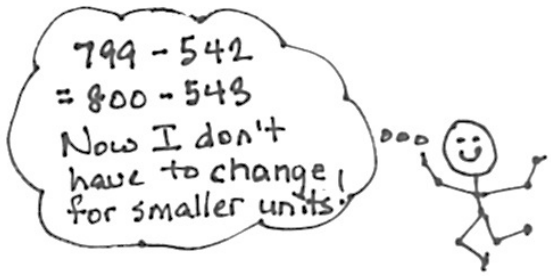
a. 507 – 359	b. 708 – 529

3. Choose a strategy to solve, and explain why you chose that strategy.

a. 600 – 437	Explanation:

b. 808 – 597	Explanation:

4. Prove the student's strategy by solving both problems to check that their solutions are the same. Explain to your partner why this way works.



800
- 543

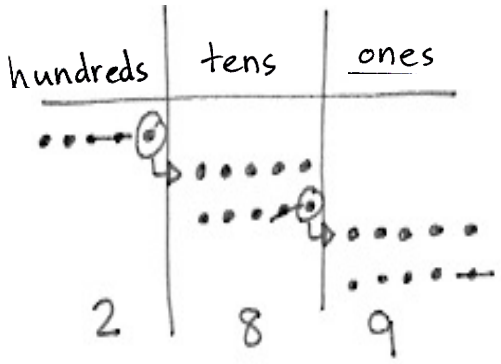
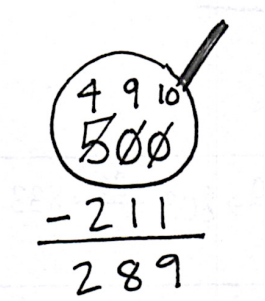
799
- 542

5. Use the simplifying strategy from Problem 4 to solve the following two problems.

a. 600 – 547	b. 700 – 513

Name _____ Date _____

1. Explain how the two strategies to solve 500 – 211 are related.

a.	b.
	

2. Solve and explain why you chose that strategy.

a. 220 + 390 = _____	Explanation:
b. 547 – 350 = _____	Explanation:
c. 464 + 146 = _____	Explanation:
d. 600 – 389 = _____	Explanation:

Name _____ Date _____

Step 1: Show your strategy to solve.
Step 2: Find a classmate who used a different strategy, and copy his work into the box.
Step 3: Discuss which strategy is more efficient.

1. 399 + 237 = _____

a. My strategy	b. _____'s strategy

2. 400 – 298 = _____

a. My strategy	b. _____'s strategy

3. 548 + 181 = _____

a. My strategy	b. _____'s strategy

4. 360 + _____ = 754

a. My strategy	b. _____'s strategy

5. 862 – _____ = 690

a. My strategy	b. _____'s strategy

Start of Homework section for Mission 5

Name _____ Date _____

1. Complete each *more* or *less* statement.

   a. 10 more than 222 is _____.

   b. 100 more than 222 is _____.

   c. 10 less than 222 is _____.

   d. 100 less than 222 is _____.

   e. 515 is 10 more than _____.

   f. 299 is 100 less than _____.

   g. _____ is 100 less than 345.

   h. _____ is 10 more than 397.

   i. 898 is _____ than 998.

   j. 607 is _____ than 597.

   k. 10 more than 309 is _____.

   l. 309 is _____ than 319.

2. Complete each regular number pattern.

   a. 280, 290, _____, _____, _____, 330

   b. 530, 520, 510, _____, _____, _____

   c. 643, 543, _____, _____, _____, 143

   d. 681, 691, _____, _____, _____, 731

   e. 427, _____, _____, _____, 387, 377

   f. _____, _____, _____, 788, 778, 768

3. Complete each statement.

a. 235 $\xrightarrow{+10}$ _____ $\xrightarrow[+100]{}$ _____

b. 391 $\xrightarrow[-100]{}$ _____ $\xrightarrow[-10]{}$ _____

c. 417 $\xrightarrow{-10}$ _____ $\xrightarrow{-\_\_\_}$ _____ $\xrightarrow{-100}$ 297

d. 311 $\xrightarrow{-10}$ _____ $\xrightarrow{-10}$ _____ $\xrightarrow{+100}$ _____ $\xrightarrow{+100}$ _____ $\xrightarrow{+10}$ _____

4. Solve using the arrow way.

a. 370 + 110 = _____

b. 290 + _____ = 400

c. _____ + 710 = 850

Name _____ Date _____

1. Solve each addition problem using place value strategies. Use the arrow way or mental math, and record your answers. You may use scrap paper if you like.

   a. 4 hundreds 5 tens + 2 hundreds = _____ hundreds _____ tens

   450 + 200 = _____

   b. 220 + 300 = _____ 230 + 500 = _____ 200 + 440 = _____

   c. 400 + 368 = _____ 386 + 500 = _____ 700 + 239 = _____

   d. 119 + _____ = 519 _____ + 272 = 872 62 + _____ = 562

2. Solve each subtraction problem using place value strategies. Use the arrow way or mental math, and record your answers. You may use scrap paper if you like.

   a. 5 hundreds 8 ones – 3 hundreds = _____ hundreds _____ tens _____ ones

   508 – 300 = _____

   b. 430 – 200 = _____ 550 – 300 = _____ 860 – _____ = 360

   c. 628 – 200 = _____ 718 – 500 = _____ 836 – 400 = _____

   d. 553 – _____ = 153 981 – _____ = 381 827 – _____ = 27

3. Fill in the blanks to make true number sentences. Use place value strategies, number bonds, or the arrow way to solve.

   a. 300 more than 215 is _____.

   b. 300 more than _____ is 668.

   c. 500 less than 980 is _____.

   d. _____ less than 987 is 487.

   e. 600 _____ than 871 is 271.

   f. 400 _____ than 444 is 844.

Name _____ Date _____

1. Solve each set of problems using the arrow way.

a. 260 + 200 260 + 240 260 + 250
b. 320 + 400 320 + 480 320 + 490
c. 550 + 200 550 + 250 550 + 270
d. 230 + 400 230 + 470 230 + 490

2. Solve using the arrow way or mental math. Use scrap paper if needed.

a. 320 + 200 = _____	280 + 320 = _____	290 + 320 = _____
b. 130 + 500 = _____	130 + 560 = _____	130 + 580 = _____
c. 360 + 240 = _____	350 + 270 = _____	380 + 230 = _____
d. 260 + 250 = _____	270 + 280 = _____	280 + 250 = _____
e. 440 + 280 = _____	660 + 160 = _____	770 + 150 = _____

3. Solve.

a. 34 tens + 20 tens = _____tens

b. 34 tens + 26 tens = _____tens

c. 34 tens + 27 tens = _____tens

d. 34 tens + 28 tens = _____tens

e. What is the value of 62 tens? _____

Name _____ Date _____

1. Solve using the arrow way.

a. 430 – 200 430 – 230 430 – 240
b. 570 – 300 570 – 370 570 – 390
c. 750 – 400 750 – 450 750 – 480
d. 940 – 330 940 – 360 940 – 480

2. Solve using the arrow way or mental math. Use scrap paper if needed.

a. 330 – 200 = _____	330 – 230 = _____	330 – 260 = _____
b. 440 – 240 = _____	440 – 260 = _____	440 – 290 = _____
c. 860 – 560 = _____	860 – 570 = _____	860 – 590 = _____
d. 970 – 470 = _____	970 – 480 = _____	970 – 490 = _____

3. Solve.

a. 66 tens – 30 tens = _____

b. 66 tens – 36 tens = _____

c. 66 tens – 38 tens = _____

d. 67 tens – 39 tens = _____

e. What is the value of 28 tens? _____

f. What is the value of 36 tens? _____

Name _____ Date _____

1. Solve.

   a. 32 tens = _____

   b. 52 tens = _____

   c. 19 tens + 11 tens = _____ tens

   d. 19 tens + 13 tens = _____ tens

   e. 28 tens + 23 tens = _____ tens

   f. 28 tens + 24 tens = _____ tens

2. Add by drawing a number bond to make a hundred. Write the simplified equation and solve.

   a. 90 + 180

   100 + 170 = _____

   b. 190 + 460

   _____ = _____

c. 540 + 280

_____ = _____

d. 380 + 430

_____ = _____

e. 99 + 141

_____ = _____

f. 75 + 299

_____ = _____

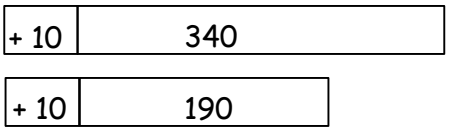
g. 795 + 156

_____ = _____

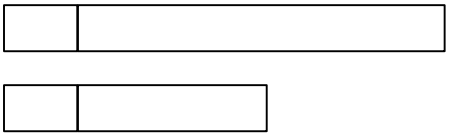
Name _____ Date _____

1. Draw and label a tape diagram to show how to simplify the problem. Write the new equation, and then subtract.

   a. 340 – 190 = 350 – 200 = _____



   b. 420 – 190 = _____ = _____



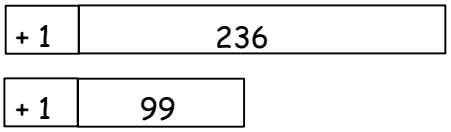
   c. 500 – 280 = _____ = _____

   d. 650 – 280 = _____ = _____

   e. 740 – 270 = _____ = _____

2. Draw and label a tape diagram to show how to simplify the problem. Write a new equation, and then subtract. Check your work using addition.

a. 236 – 99 = 237 – 100 = _____

	Check:

b. 372 – 199 = _____ = _____

	Check:

c. 442 – 298 = _____ = _____

	Check:

d. 718 – 390 = _____ = _____

	Check:

Name _____ Date _____

1. Solve each problem with a written strategy such as a tape diagram, a number bond, the arrow way, the vertical form, or chips on a place value chart.

a. 370 + 300 = _____	b. _____ = 562 – 200	c. _____ + 500 = 812
d. 230 - 190 = _____	e. _____= 640 – 180	f. 450 - 290 = _____

2. Use the arrow way to complete the number sentences.

a. 420 - 230 = _____	b. 340 - 160 = _____	c. 710 – 350 = _____

3. Solve 667 + 295 using two different strategies.

a.	b.

c. Explain which strategy is easier to use when solving and why.

_____

_____

_____

4. Circle one of the strategies below, and use the circled strategy to solve 199 + 478.

a.	b. Solve:
arrow way / number bond	

c. Explain why you chose that strategy.

_____

_____

_____

Name _____ Date _____

1. Solve the following problems using your place value chart, place value disks, and vertical form. Bundle a ten or hundred, when necessary.

a. 505 + 75	b. 606 + 84
c. 293 + 114	d. 314 + 495
e. 364 + 326	f. 346 + 234
g. 384 + 225	h. 609 + 351

2. Solve.

a. 200 + 400 = _____

b. 220 + 400 = _____

c. 220 + 440 = _____

d. 220 + 480 = _____

e. 225 + 485 = _____

f. 500 + 60 = _____

g. 500 + 160 = _____

h. 540 + 160 = _____

i. 560 + 240 = _____

j. 560 + 250 = _____

Name _____ Date _____

1. Solve the following problems using a place value chart, place value disks, and vertical form. Bundle a ten or hundred, when necessary.

a. 205 + 345	b. 365 + 406
c. 446 + 334	d. 466 + 226
e. 537 + 243	f. 358 + 443
g. 753 + 157	h. 663 + 258

2. Solve.

a. 180 + 420 = _____

b. 190 + 430 = _____

c. 364 + 236 = _____

d. 275 + 435 = _____

e. 404 + 206 = _____

f. 440 + 260 = _____

g. 444 + 266 = _____

Name _____ Date _____

1. Solve using vertical form, and draw chips on the place value chart. Bundle as needed.

hundreds	tens	ones

a. 124 + 260 = _____

hundreds	tens	ones

b. 426 + 324 = _____

hundreds	tens	ones

c. 362 + 243 = _____

Modified from original

hundreds	tens	ones

d. 606 + 294 = _____

2. Solve using vertical form, and draw chips on a place value chart. Bundle as needed.

a. 372 + 118 = _____

b. 248 + 233 = _____

Name _____ Date _____

1. Solve using vertical form, and draw chips on the place value chart. Bundle as needed.

hundreds	tens	ones

a. 167 + 224 = _____

hundreds	tens	ones

b. 518 + 245 = _____

hundreds	tens	ones

c. 482 + 369 = _____

hundreds	tens	ones

d. 638 + 298 = _____

2. Solve using vertical form, and draw chips on a place value chart. Bundle as needed.

   a. 456 + 378

   b. 187 + 567

Name _____ Date _____

1. Solve 435 + 290 using two different strategies.

a.	b.

c. Explain which strategy would be easier and why.

_____

_____

_____

_____

2. Choose the best strategy and solve. Explain why you chose that strategy.

a. 299 + 458	Explanation: _____ _____ _____ _____
b. 733 + 210	Explanation: _____ _____ _____ _____
c. 295 + 466	Explanation: _____ _____ _____ _____

Name _____ Date _____

1. Solve using mental math.

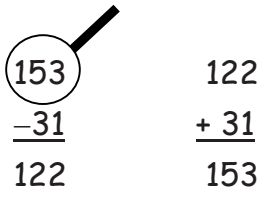
   a. 9 – 5 = _____ 90 – 50 = _____ 190 – 50 = _____ 190 – 49 = _____

   b. 7 – 4 = _____ 70 – 40 = _____ 370 – 40 = _____ 370 – 39 = _____

2. Solve using mental math or vertical form with place value disks. Check your work using addition.

   a. 153 – 31 = 122

   b. 153 – 38 = _____



   c. 362 – 49 = _____

   d. 485 – 177 = _____

e. 753 – 290 = _____

f. 567 – 290 = _____

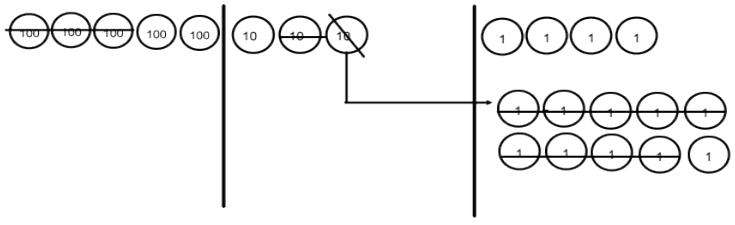
g. 873 – 428 = _____

h. 817 – 565 = _____

i. 973 – 681 = _____

j. 748 – 239 = _____

3. Complete the number sentence modeled by place value disks.



____ – ____ = 215

Name _____ Date _____

1. Solve by drawing place value disks on a chart. Then, use addition to check your work.

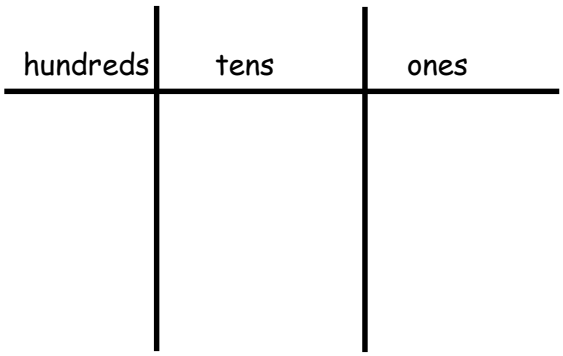
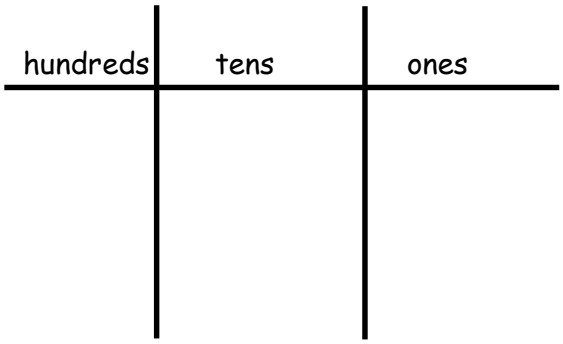
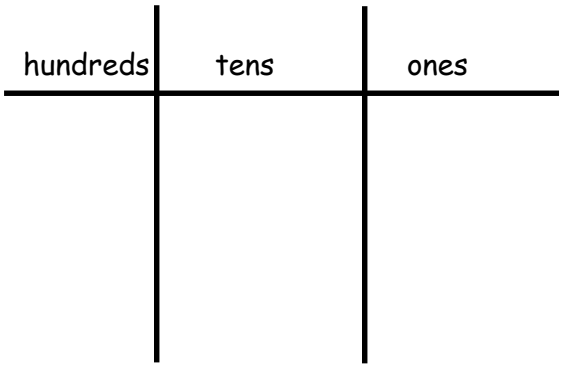
a. 373 – 180	Solve vertically or mentally:	Check:
b. 463 – 357	Solve vertically or mentally:	Check:
c. 723 – 584	Solve vertically or mentally:	Check:

d. 861 – 673	Solve vertically or mentally:	Check:
e. 898 – 889	Solve vertically or mentally:	Check:

2. If 544 + 366 = 910, then 910 – 544 = 366. Explain why this statement is true using numbers, pictures, or words.

Name _____ Date _____

1. Solve by drawing chips on the place value chart. Then, use addition to check your work.

a. 800 – 675 	Solve vertically or mentally:	Check:
b. 742 – 495 	Solve vertically or mentally:	Check:
c. 657 – 290 	Solve vertically or mentally:	Check:

d. 877 – 398 hundreds | tens | ones	Solve vertically or mentally:	Check:
e. 941 – 628 hundreds | tens | ones	Solve vertically or mentally:	Check:

2. Complete all of the *if…then* statements. Draw a number bond to represent the related facts.

   a. If **928** – _____ = **519**, then **519 + 409** = _____.

   b. If **764** – _____ = **391**, then _____ + **391** = **764**.

Name _____ Date _____

1. Solve vertically or using mental math. Draw chips on the place value chart and unbundle, if needed.

a. 206 – 89 = _____

hundreds	tens	ones

b. 509 – 371 = _____

hundreds	tens	ones

c. 607 – 288 = _____

hundreds	tens	ones

d. 800 – 608 = _____

hundreds	tens	ones

e. 900 – 572 = _____

hundreds	tens	ones

2. Andy said that 599 – 456 is the same as 600 – 457. Write an explanation using pictures, numbers, or words to prove Andy is correct.

Name _____ Date _____

1. Solve vertically or using mental math. Draw chips on the place value chart and unbundle, if needed.

a. 200 – 123 = _____

hundreds	tens	ones

b. 400 – 219 = _____

hundreds	tens	ones

c. 700 – 542 = _____

hundreds	tens	ones

d. 800 – 409 = _____

hundreds	tens	ones

e. 905 – 606 = _____

hundreds	tens	ones

2. Solve 800 – 567. Then, check your work using addition.

Solution:	Check:

Name _____ Date _____

1. Use the arrow way and counting on to solve.

a. 700 – 462	b. 900 – 232

2. Solve vertically, and draw a place value chart and chips. Rename in one step.

a. 907 – 467	b. 803 – 667

3. Choose a strategy to solve, and explain why you chose that strategy.

a. 700 – 390	Explanation:

b. 919 – 657	Explanation:

4. Explain why 300 – 186 is the same as 299 – 185.

Explanation:

5. Solve 500 – 278 using the simplifying strategy from Problem 4.

Solution:

Name _____ Date _____

1. Solve and explain why you chose that strategy.

a. 340 + 250 = _____	Explanation:
b. 490 + 350 = _____	Explanation:
c. 519 + 342 = _____	Explanation:

d. 610 + _____ = 784	Explanation:
e. 700 – 456 = _____	Explanation:
f. 904 – 395 = _____	Explanation:

Name _____ Date _____

Solve each problem using two different strategies.

1. 456 + 244 = _____

a. First Strategy	b. Second Strategy

2. 698 + _____ = 945

a. First Strategy	b. Second Strategy

Circle a strategy to solve, and explain why you chose that strategy.

3. 257 + 160 = _____

a. *Arrow way or vertical form*

b. Solve:	c. Explanation:
	_____
	_____
	_____
	_____
	_____

4. 754 – 597 = _____

a. *Number bond or arrow way*

b. Solve:	c. Explanation:
	_____
	_____
	_____
	_____
	_____

Mission 6: Equal Groups

Section One: Student Notes and Exit Tickets

To complete with all digital lessons

Are you ready to

Mission 6

Equal Groups

Name:_____

Printed in the U.S.A.

This book may be purchased from the publisher at **zearn.org.**

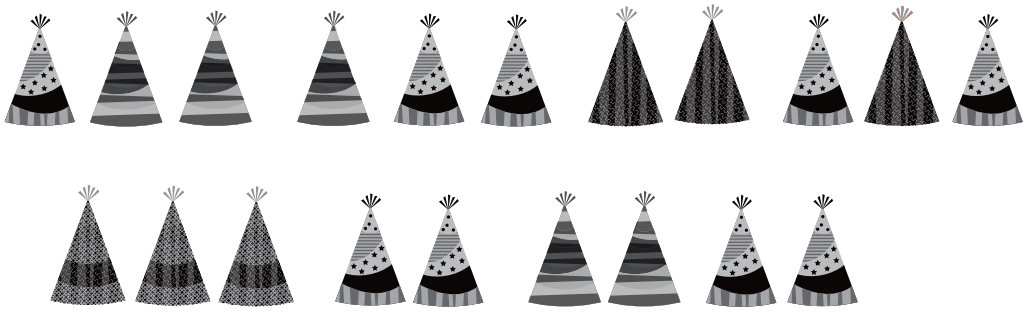
Fourth Edition

Lesson 1 G:2 M:6	EXIT TICKET

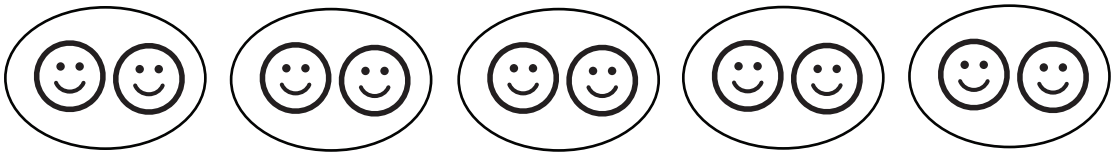
Name:_____ **Date:**_____

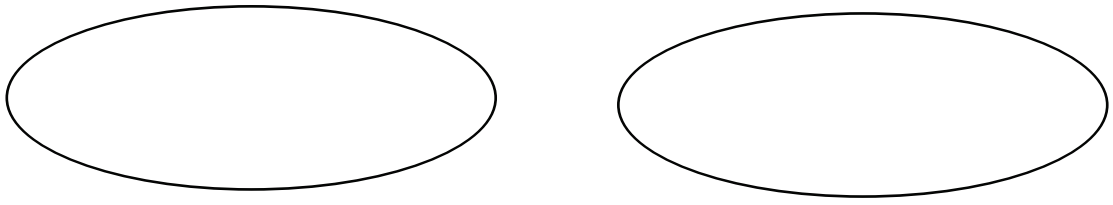
Complete: ☐ **Class:**_____

1. Circle groups of 4 hats.



2. Redraw the smiley faces into 2 equal groups.





2 groups of _____ = _____.

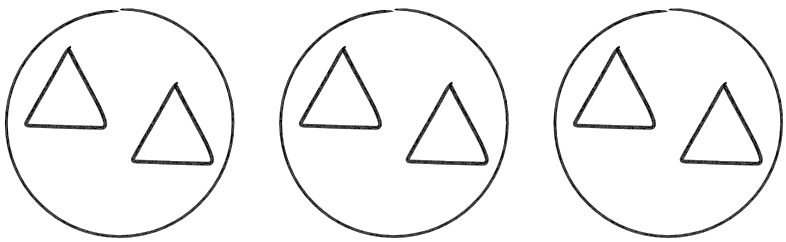
Lesson 2 G:2 M:6	Add, Repeat, Complete!
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1

SHOW YOUR WORK



_____ + _____ + _____ = _____

3 groups of _____ = _____

2 Mr. Sawicki sorts his socks by color. He has 4 red socks, 4 yellow socks, 4 green socks, and 4 blue socks.

How many socks does Mr. Sawicki have in all?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

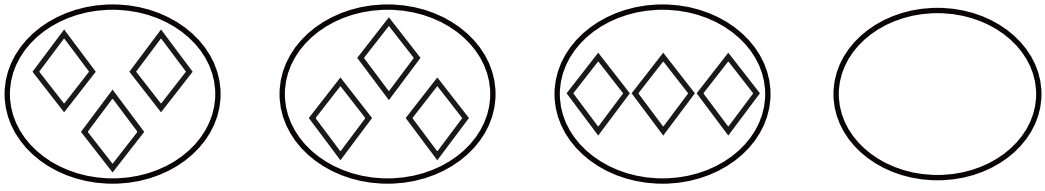
EXTRA WORKSPACE

Lesson 2 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Draw 1 more equal group.



_____ + _____ + _____ + _____ = _____

4 groups of _____ = _____

2. Draw 2 groups of 3 stars. Then, write a repeated addition equation to match.

SHOW YOUR WORK

Lesson 4 G:2 M:6	Equal Groups, Equal Tapes
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Draw a tape diagram that shows 3 groups of 4.

Write the repeated addition sentence that shows the total.

YOUR TAPE DIAGRAM

YOUR REPEATED ADDITION SENTENCE

_____ + _____ + _____ = _____

2 In Maria's garden, there are 3 white flowers, 3 yellow flowers, 3 pink flowers, 3 red flowers, and 3 orange flowers.

How many flowers are there in all?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

EXTRA WORKSPACE

Lesson 4 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Draw a tape diagram to find the total.

a. ★★★★ ★★★★ ★★★★

b. 3 groups of 3

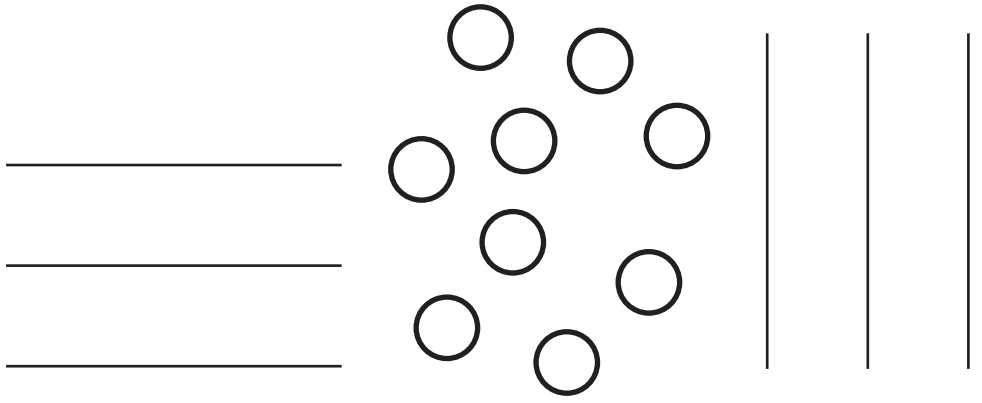
c. 2 + 2 + 2 + 2 + 2

Lesson 5 G:2 M:6	EXIT TICKET

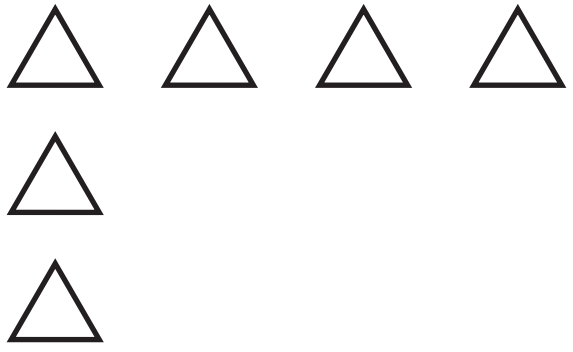
Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Circle groups of three. Redraw groups of three as rows and then as columns.



2. Complete the array by drawing more triangles. The array should have 12 triangles in all.



Lesson 6 G:2 M:6	A Row, a Column, Array
	ZEARN STUDENT NOTES

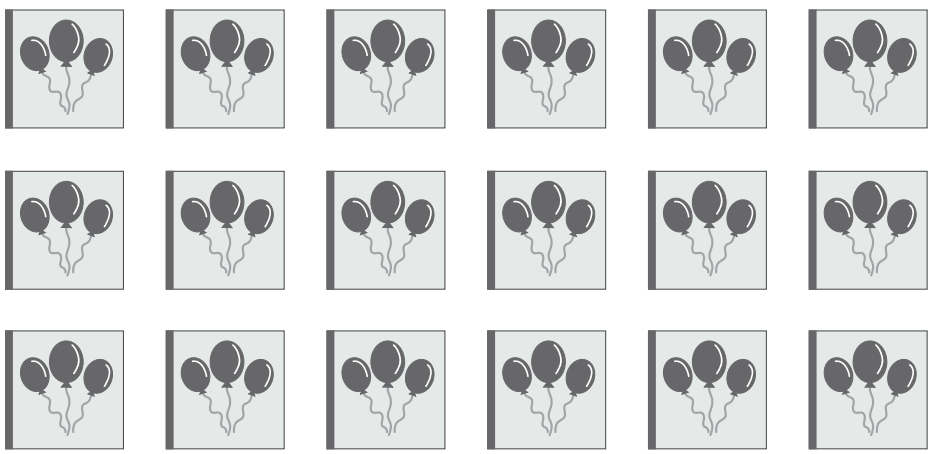
Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Circle each column of invitations.

Write a number sentence to find the total number of invitations. Then solve.

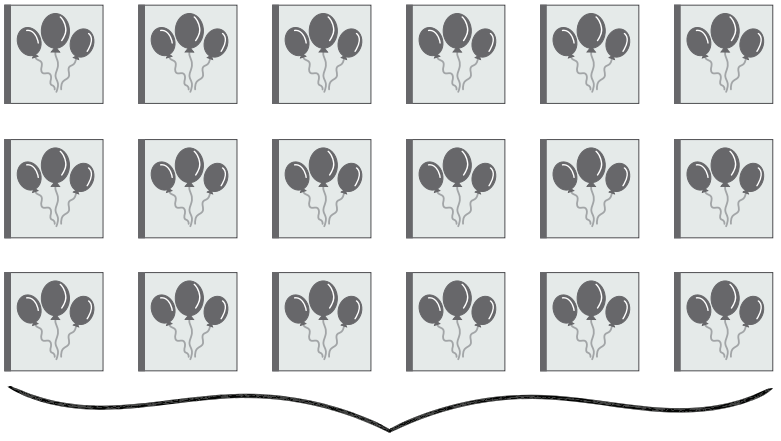
SHOW YOUR WORK



_____ + _____ + _____ + _____ + _____ + _____ = _____

2 Draw 1 more column.

How many invitations are there now?



18 + _____ = _____

Now there are _____ invitations.

EXTRA WORKSPACE

Lesson 6 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Use the array to answer the questions below.

a. _____ rows of _____ = _____

b. _____ columns of _____ = _____

c. _____ + _____ + _____ + _____ = _____

d. Add 1 more row. How many stars are there now? _____

e. Add 1 more column to the new array you made in (d). How many stars are there now? _____

Lesson 7 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

Use horizontal and vertical lines to separate the rows or columns.

1. Draw an array of X's with 3 rows of 5.

_____ + _____ + _____ = _____

3 rows of 5 = _____

2. Draw an array of X's with 1 more row than the above array. Write a repeated addition equation to find the total number of X's.

Lesson 9 G:2 M:6	Array Addition
	ZEARN STUDENT NOTES

Name:_____ Date:_____

Complete: ☐ Class:_____

1 Braydon ate 4 cherries each in the morning, in the afternoon, and in the evening.

How many cherries did Braydon eat altogether?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

EXTRA WORKSPACE

Lesson 9 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

Draw a tape diagram or an array for each word problem. Then, write a repeated addition equation to match.

1. Olivia cleans 3 cars every hour at work. She worked 4 hours on Saturday. How many cars did Olivia clean on Saturday?

SHOW YOUR WORK

2. Joshua put 5 stickers on each page in his sticker album. He filled 5 pages with stickers. How many stickers did Joshua use?

SHOW YOUR WORK

Lesson 10 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

On this sheet, use square tiles to construct the following arrays with no gaps or overlaps. Write a repeated addition equation to match your construction.

1.

a. Construct a rectangle with 2 rows of 5 tiles.

SHOW YOUR WORK

b. Write the repeated addition equation:

_____

2.

a. Construct a rectangle with 5 columns of 2 tiles.

SHOW YOUR WORK

b. Write the repeated addition equation:

_____

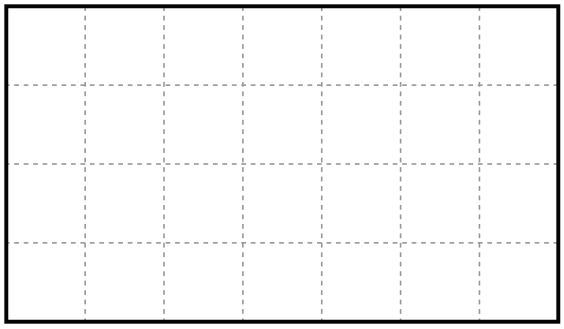
Lesson 12 G:2 M:6	Step-by-Step Arrays
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Create an array with 2 rows of 3.

YOUR NUMBER SENTENCE



2 rows of 3 = _____

3 + 3 = _____

Square tile

2 Create an array without a square tile.

YOUR NUMBER SENTENCE

_____ rows of _____ = _____

_____ + _____ + _____ = _____

EXTRA WORKSPACE

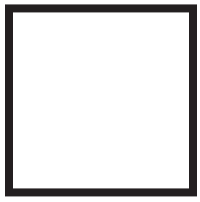
Lesson 12 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Draw an array of 3 columns of 3, without gaps or overlaps, starting with the square below.

SHOW YOUR WORK



Lesson 13 G:2 M:6	Breaking Down Arrays
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Draw an array with 4 rows of 5 squares.

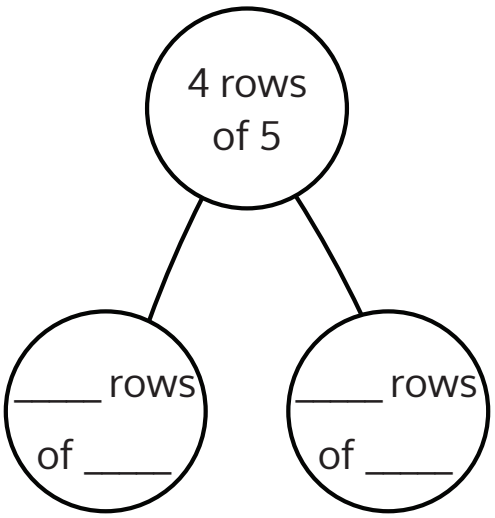
YOUR DRAWING

YOUR NUMBER SENTENCE

4 rows of 5 = _____

____ + ____ + ____ + ____ = ____

YOUR NUMBER BOND



2

Ms. Johnson bakes a square pan of crumb cake, which she cuts into nine equal pieces. Her sister eats 1 row of the pan. Then, her mom eats 1 column.

How many pieces are left?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

EXTRA WORKSPACE

Lesson 13 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Use square tiles to complete the steps for each problem.

   Step 1: Construct a rectangle with 3 columns of 4.

   Step 2: Separate 2 columns of 4.

   Step 3: Write a number bond to show the whole and two parts.

   Step 4: Write a repeated addition sentence to match each part of the number bond.

SHOW YOUR WORK

Lesson 14 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. With tiles, show 1 rectangle with 12 squares. Complete the sentences below.

SHOW YOUR WORK

I see _____ rows of _____.

In the exact same rectangle, I see _____ columns of _____.

Lesson 15 G:2 M:6	Repeated Rows
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Ms. Johnson is filling a muffin pan with batter. She fills 2 columns of 4. One column of 4 is left empty when she bakes the muffins.

How many muffins does Ms. Johnson make?

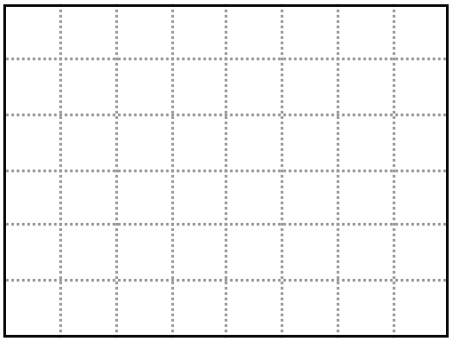
YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

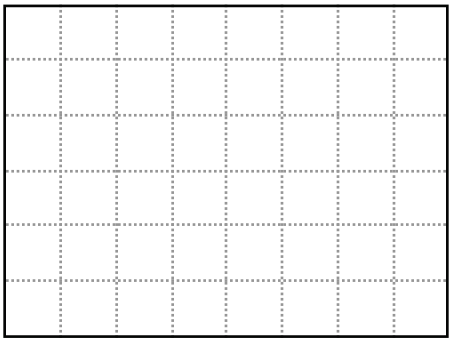
2 Start in the upper left corner.

Shade in an array with 2 rows of 3 using the grid.



3 Start in the upper left corner.

Shade in an array with 5 columns of 4 using the grid.



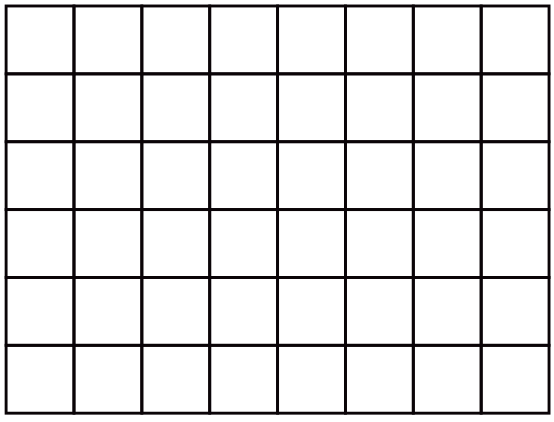
EXTRA WORKSPACE

Lesson 15 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

Shade in an array with 3 rows of 5.



Write a repeated addition equation for the array.

_____

Lesson 17 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Draw an array for each set. Complete the sentences.

   a. 2 rows of 5

   2 rows of 5 = _____

   _____ + _____ = _____

   Circle one: 5 doubled is even / not even.

   b. 2 rows of 3

   2 rows of 3 = _____

   _____ + _____ = _____

   Circle one: 3 doubled is even / not even.

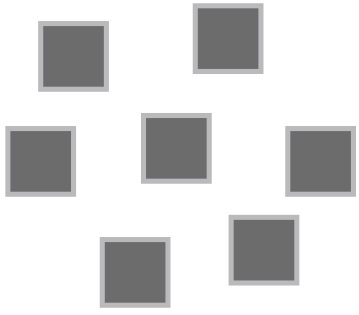
Lesson 18 G:2 M:6	Doubly Even
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Circle pairs to determine if 7 is even or not even.

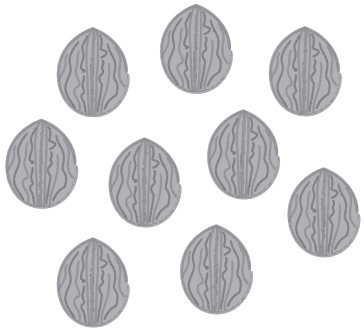
Then circle *even* or *not even*.



7 is even / not even

2 There are 9 walnuts.

Circle pairs to determine if 9 is even or not even.



9 is even / not even

3

Eggs come in cartons of 12.

Use pictures, numbers, or words to explain whether 12 is even or not even.

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

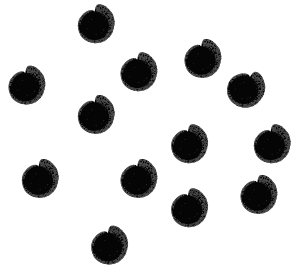
EXTRA WORKSPACE

Lesson 18 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

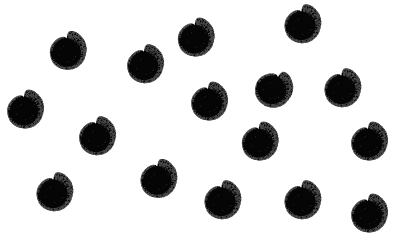
Complete: ☐ **Class:**_____

Redraw the following sets of dots as columns of two or 2 equal rows.

1. 

There are _____ dots.

Is _____ an even number? _____

2. 

There are _____ dots.

Is _____ an even number? _____

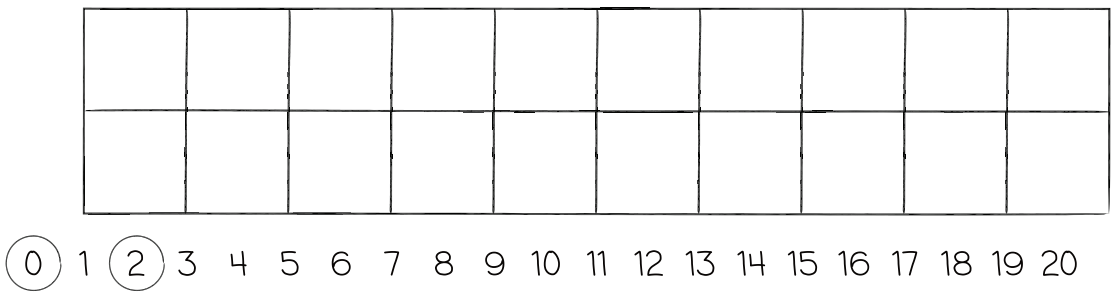
Lesson 19 G:2 M:6	Odds and Evens
	ZEARN STUDENT NOTES

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1 Circle all the even numbers below the array. The first two have been done for you.

SHOW YOUR WORK



2 Eggs come in cartons of 12. Ms. Joseph used 1 egg.

Is the number of eggs left even or odd?

YOUR DRAWING

YOUR NUMBER SENTENCE

YOUR WORD SENTENCE

EXTRA WORKSPACE

Lesson 19 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

1. Are the **bold** numbers even or odd? Circle the answer, and explain how you know.

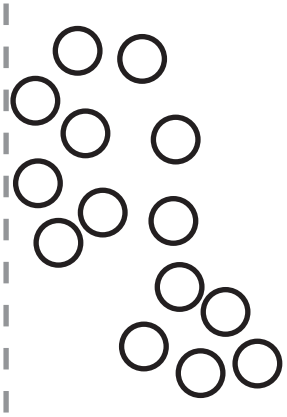
	EXPLANATION
a. **18** even / odd	_____ _____ _____ _____
b. **23** even / odd	_____ _____ _____ _____

Lesson 20 G:2 M:6	EXIT TICKET

Name:_____ **Date:**_____

Complete: ☐ **Class:**_____

Use the objects to create an array.



Array

There are an even / odd (circle one) number of circles.

Redraw your picture with 1 *less* circle.

There are an even / odd (circle one) number of circles.

Congratulations!

You completed

Grade 2 Mission 6

Equal Groups

Name

Date

Zearned it!

Mission 6: Equal Groups

Section Two: Problem Sets and Homework

To complete if internet access is not available

Name _____ Date _____

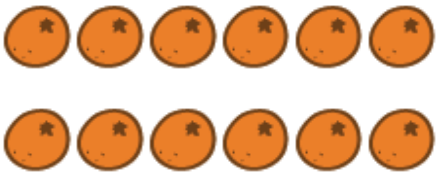
1. Circle groups of two apples.

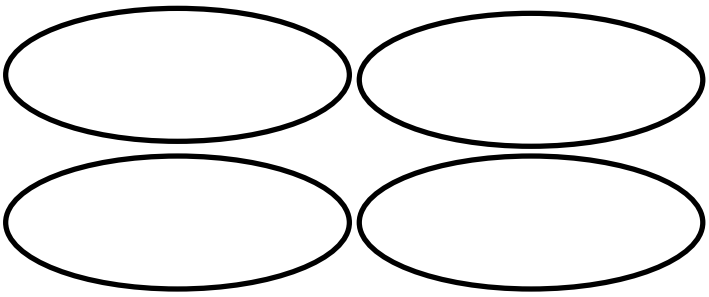
There are _____ groups of two apples.

2. Circle groups of three balls.

There are _____ groups of three balls.

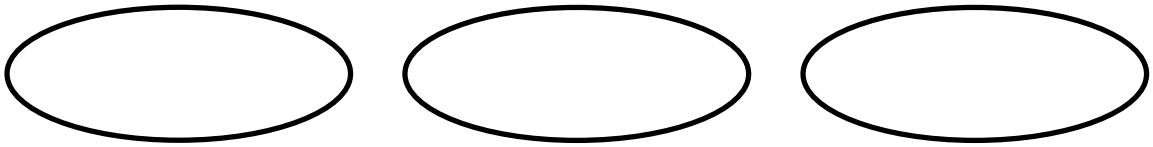
3. Redraw the 12 oranges into 4 equal groups.





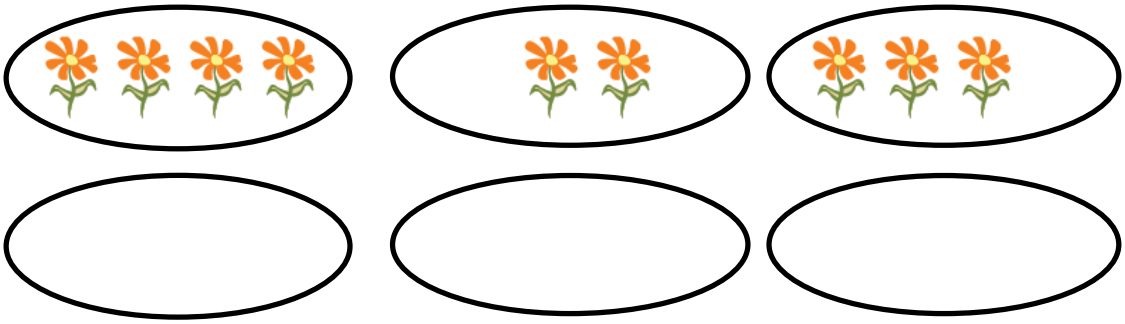
4 groups of _____ oranges

4. Redraw the 12 oranges into 3 equal groups.



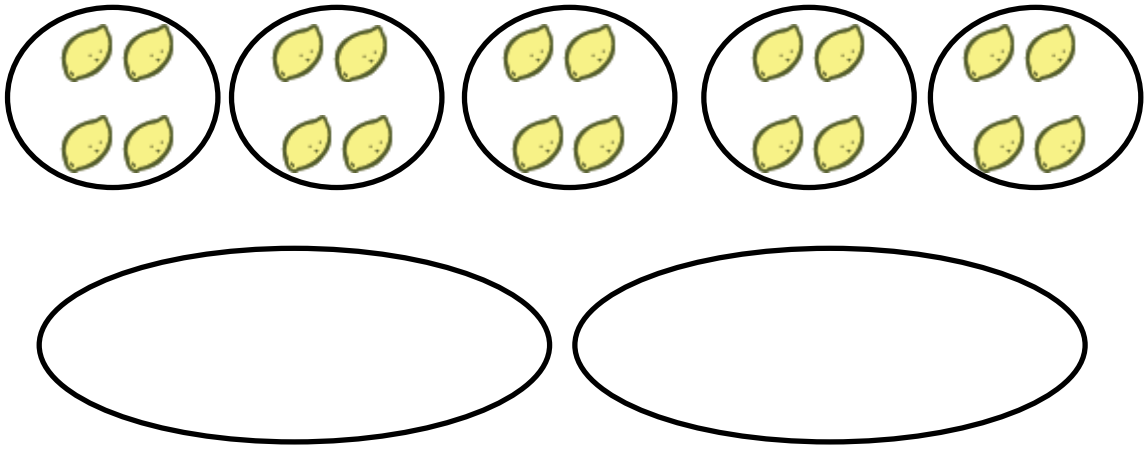
3 groups of _____ oranges

5. Redraw the flowers to make each of the 3 groups have an equal number.



3 groups of _____ flowers = _____ flowers.

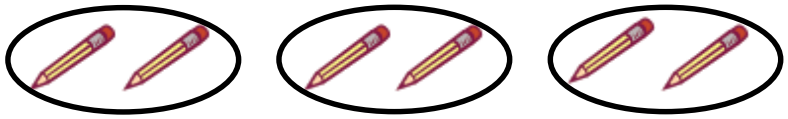
6. Redraw the lemons to make 2 equal size groups.



2 groups of _____ lemons = _____ lemons.

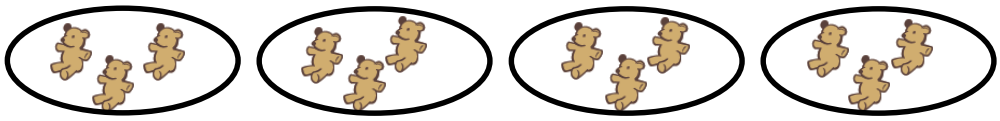
Name _____ Date _____

1. Write a repeated addition equation to show the number of objects in each group. Then, find the total.

a. 

_____ + _____ + _____ = _____

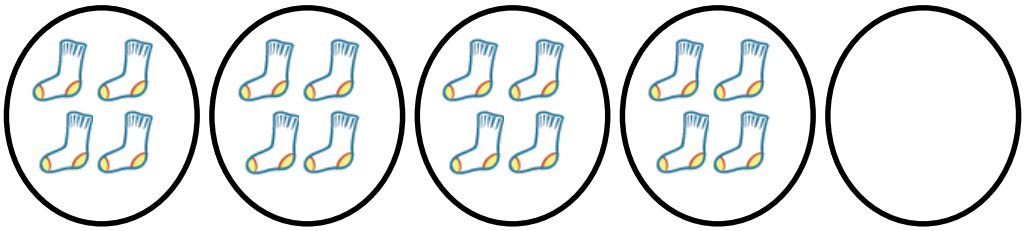
3 groups of _____ = _____

b. 

_____ + _____ + _____ + _____ = _____

4 groups of _____ = _____

2. Draw 1 more group of four. Then, write a repeated addition equation to match.



_____ + _____ + _____ + _____ + _____ = _____

5 groups of _____ = _____

3. Draw 1 more group of three. Then, write a repeated addition equation to match.

_____ + _____ + _____ + _____ = _____

_____ groups of 3 = _____

4. Draw 2 more equal groups. Then, write a repeated addition equation to match.

_____ + _____ + _____ + _____ + _____ = _____

_____ groups of 2 = _____

5. Draw 3 groups of 5 stars. Then, write a repeated addition equation to match.

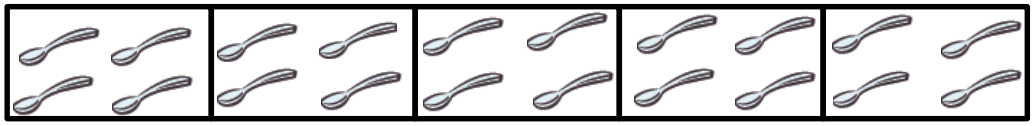
Name _____ Date _____

1. Write a repeated addition equation to find the total of each tape diagram.

a. 

_____ + _____ + _____ + _____ = _____

4 groups of 2 = _____

b. 

_____ + _____ + _____ + _____ + _____ = _____

5 groups of _____ = _____

c.

5	5	5

_____ + _____ + _____ = _____

3 groups of _____ = _____

d.

3	3	3	3	3	3

_____ + _____ + _____ + _____ + _____ + _____ = _____

_____ groups of _____ = _____

2. Draw a tape diagram to find the total.

   a. 3 + 3 + 3 + 3 = _____

   b. 4 + 4 + 4 = _____

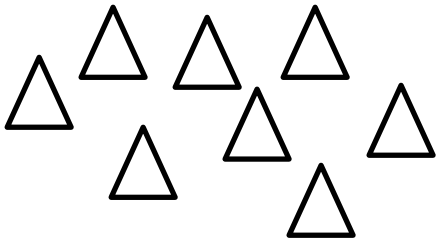
   c. 5 groups of 2

   d. 4 groups of 4

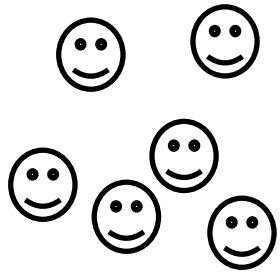
   e. 

Name _____ Date _____

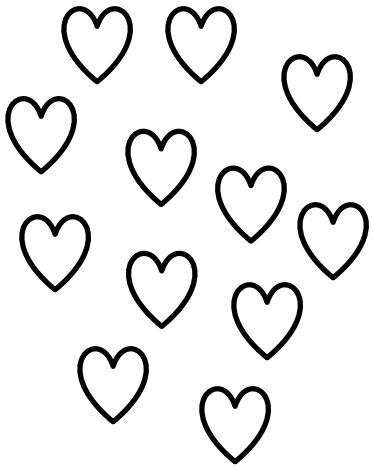
1. Circle groups of four. Then, draw the triangles into 2 equal rows.



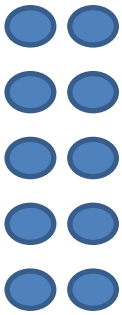
2. Circle groups of two. Redraw the groups of two as rows and then as columns.



3. Circle groups of three. Redraw the groups of three as rows and then as columns.



4. Count the objects in the arrays from left to right by rows and by columns. As you count, circle the rows and then the columns.

a. 

b. 

5. Redraw the circles and stars in Problem 4 as columns of two.

6. Draw an array with 15 triangles.

7. Show a different array with 15 triangles.

Name _____ Date _____

1. Complete each missing part describing each array.

Circle rows.

a. 

5 rows of _____ = _____

___ + ___ + ___ + ___ + ___ = _____

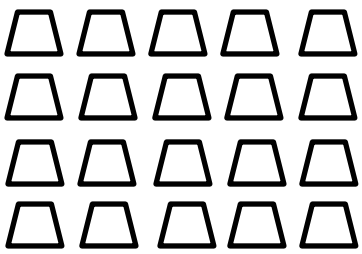
Circle columns.

b. 

3 columns of _____ = _____

_____ + _____ + _____ = _____

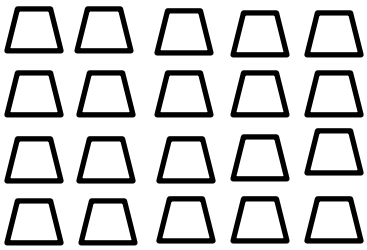
Circle rows.

c. 

4 rows of _____ = _____

___ + ___ + ___ + ___ = ___

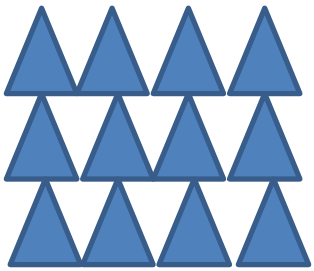
Circle columns.

d. 

5 columns of _____ = _____

___ + ___ + ___ + ___ + ___ = ___

2. Use the array of triangles to answer the questions below.



a. _____ rows of _____ = 12

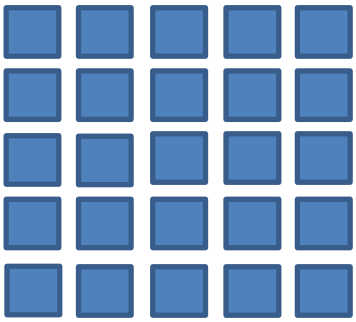
b. _____ columns of _____ = 12

c. _____ + _____ + _____ = _____

d. Add 1 more row. How many triangles are there now? _____

e. Add 1 more column to the new array you made in 2(d). How many triangles are there now? _____

3. Use the array of squares to answer the questions below.



a. _____ + _____ + _____ + _____ + _____ = _____

b. _____ rows of _____ = _____

c. _____ columns of _____ = _____

d. Remove 1 row. How many squares are there now? _____

e. Remove 1 column from the new array you made in 3(d). How many squares are there now? _____

Name _____ Date _____

1. a. One row of an array is drawn below. Complete the array with X's to make 3 rows of 4. Draw horizontal lines to separate the rows.

X X X X

b. Draw an array with X's that has 3 columns of 4. Draw vertical lines to separate the columns. Fill in the blanks.

_____ + _____ + _____ = _____

3 rows of 4 = _____

3 columns of 4 = _____

2. a. Draw an array of X's with 5 columns of three.

b. Draw an array of X's with 5 rows of three. Fill in the blanks below.

_____ + _____ + _____ + _____ + _____ = _____

5 columns of three = _____

5 rows of three = _____

In the following problems, separate the rows or columns with horizontal or vertical lines.

3. Draw an array of X's with 4 rows of 3.

_____ + _____ + _____ + _____ = _____

4 rows of 3 = _____

4. Draw an array of X's with 1 more row of 3 than the array in Problem 3. Write a repeated addition equation to find the total number of X's.

5 Draw an array of X's with 1 less column of 5 than the array in Problem 4. Write a repeated addition equation to find the total number of X's.

Name _____ Date _____

Draw an array for each word problem. Write a repeated addition equation to match each array.

1. Jason collected some rocks. He put them in 5 rows with 3 stones in each row. How many stones did Jason have altogether?

2. Abby made 3 rows of 4 chairs. How many chairs did Abby use?

3. There are 3 wires and 5 birds sitting on each of them. How many birds in all are on the wires?

4. Henry's house has 2 floors. There are 4 windows on each floor that face the street. How many windows face the street?

Draw a tape diagram for each word problem. Write a repeated addition equation to match each tape diagram.

5. Each of Maria's 4 friends has 5 markers. How many markers do Maria's friends have in all?

6. Maria also has 5 markers. How many markers do Maria and her friends have in all?

Draw a tape diagram and an array. Then, write a repeated addition equation to match.

7. In a card game, 3 players get 4 cards each. One more player joins the game. How many total cards should be dealt now?

Name _____ Date _____

Use your square tiles to construct the following rectangles with no gaps or overlaps. Write a repeated addition equation to match each construction.

1. a. Construct a rectangle with 2 rows of 3 tiles.

_____

b. Construct a rectangle with 2 columns of 3 tiles.

_____

2. a. Construct a rectangle with 5 rows of 2 tiles.

_____

b. Construct a rectangle with 5 columns of 2 tiles.

_____

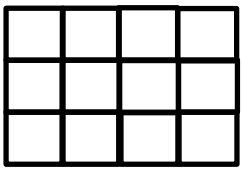
3. a. Construct a rectangle of 9 tiles that has equal rows and columns.

_____

b. Construct a rectangle of 16 tiles that has equal rows and columns.

_____

4. a. What shape is the array pictured below? _____



b. Redraw the above shape with one column removed in the space below.

c. What shape is the array now? _____

Name _____ Date _____

1. Draw without using a square tile to make an array with 2 rows of 5.

2 rows of 5 = _____

_____ + _____ = _____

2. Draw without using a square tile to make an array with 4 columns of 3.

4 columns of 3 = _____

_____ + _____ + _____ + _____ = _____

3. Complete the following arrays without gaps or overlaps. The first tile has been drawn for you.

   a. 3 rows of 4

   b. 5 columns of 3

   c. 5 columns of 4

Name _____ Date _____

Use your square tiles to complete the steps for each problem.

Problem 1

Step 1: Construct a rectangle with 4 columns of 3.

Step 2: Separate 2 columns of 3.

Step 3: Write a number bond to show the whole and two parts. Then, write a repeated addition sentence to match each part of the number bond.

Problem 2

Step 1: Construct a rectangle with 5 rows of 2.

Step 2: Separate 2 rows of 2.

Step 3: Write a number bond to show the whole and two parts. Write a repeated addition sentence to match each part of the number bond.

Problem 3

Step 1: Construct a rectangle with 5 columns of 3.

Step 2: Separate 3 columns of 3.

Step 3: Write a number bond to show the whole and two parts. Write a repeated addition sentence to match each part of the number bond.

4. Use 12 square tiles to construct a rectangle with 3 rows.

   a. _____ rows of _____ = 12

   b. Remove 1 row. How many squares are there now? _____

   c. Remove 1 column from the new rectangle you made in 4(b). How many squares are there now? _____

5. Use 20 square tiles to construct a rectangle.

   a. _____ rows of _____ = _____

   b. Remove 1 row. How many squares are there now? _____

   c. Remove 1 column from the new rectangle you made in 5(b). How many squares are there now? _____

6. Use 16 square tiles to construct a rectangle.

   a. _____ rows of _____ = _____

   b. Remove 1 row. How many squares are there now? _____

   c. Remove 1 column from the new rectangle you made in 6(b). How many squares are there now? _____

Name _____ Date _____

Cut out Rectangles A, B, and C. Then, cut according to directions. Answer each of the following using Rectangles A, B, and C.[1]

1. Cut out each row of Rectangle A.
   a. Rectangle A has _____ rows.
   b. Each row has _____ squares.
   c. _____ rows of _____ = _____
   d. Rectangle A has _____ squares.

2. Cut out each column of Rectangle B.
   a. Rectangle B has _____ columns.
   b. Each column has _____ squares.
   c. _____ columns of _____ = _____
   d. Rectangle B has _____ squares.

[1]Note: This Problem Set is used with a template of three identical 2 by 4 arrays. These arrays are labeled as Rectangles A, B, and C.

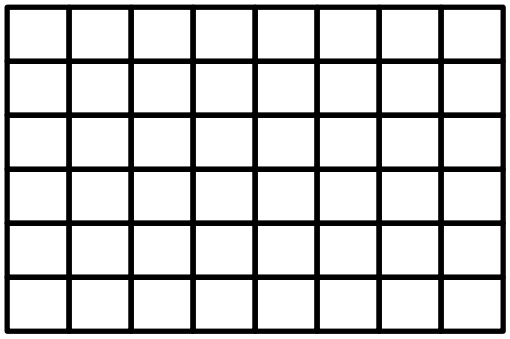
3. Cut out each square from both Rectangles A and B.
   a. Construct a new rectangle using all 16 squares.
   b. My rectangle has _____ rows of _____.
   c. My rectangle also has _____ columns of _____.
   d. Write two repeated addition number sentences to match your rectangle.

4. Construct a new array using the 24 squares from Rectangles A, B, and C.
   a. My rectangle has _____ rows of _____.
   b. My rectangle also has _____ columns of _____.
   c. Write two repeated addition number sentences to match your rectangle.

Extension: Construct another array using the squares from Rectangles A, B, and C.
   a. My rectangle has _____ rows of _____.
   b. My rectangle also has _____ columns of _____.
   c. Write two repeated addition number sentences to match your rectangle.

Name _____ Date _____

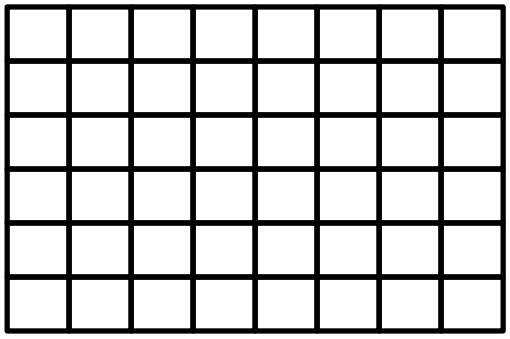
1. Shade in an array with 2 rows of 3.



Write a repeated addition equation for the array.

_____

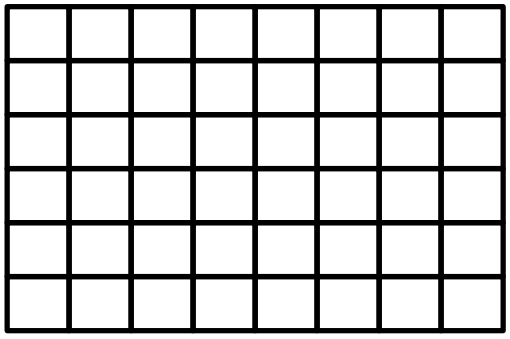
2. Shade in an array with 4 rows of 3.



Write a repeated addition equation for the array.

_____

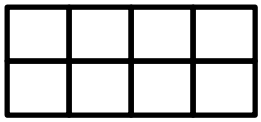
3. Shade in an array with 5 columns of 4.



Write a repeated addition equation for the array.

_____

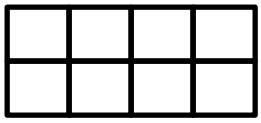
4. Draw one more column of 2 to make a new array.



Write a repeated addition equation for the new array.

_____

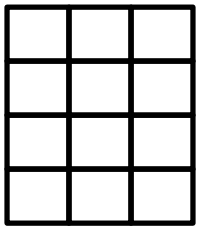
5. Draw one more row of 4 and then one more column to make a new array.



Write a repeated addition equation for the new array.

_____

6. Draw one more row and then two more columns to make a new array.

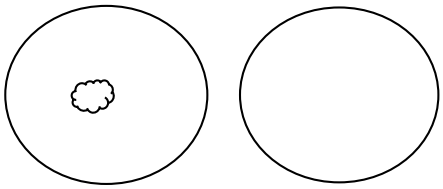


Write a repeated addition equation for the new array.

_____

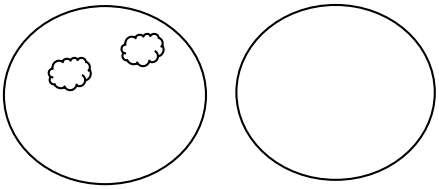
Name _____ Date _____

1. Draw to double the group you see. Complete the sentence, and write an addition equation.

a. 

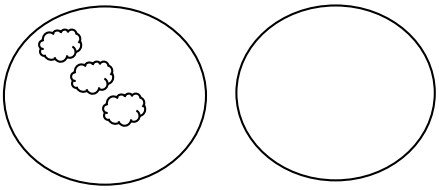
There is _____ cloud in each group.

_____ + _____ = _____

b. 

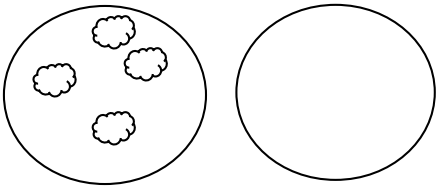
There are _____ clouds in each group.

_____ + _____ = _____

c. 

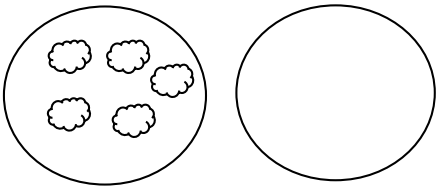
There are _____ clouds in each group.

_____ + _____ = _____

d. 

There are _____ clouds in each group.

_____ + _____ = _____

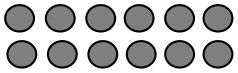
e. 

There are _____ clouds in each group.

_____ + _____ = _____

2. Draw an array for each set. Complete the sentences. The first one has been drawn for you.

a. **2 rows of 6**



2 rows of 6 = _____

_____ + _____ = _____

6 doubled is _____.

b. **2 rows of 7**

2 rows of 7 = _____

_____ + _____ = _____

7 doubled is _____.

c. **2 rows of 8**

2 rows of 8 = _____

_____ + _____ = _____

8 doubled is _____.

d. **2 rows of 9**

2 rows of 9 = _____

_____ + _____ = _____

9 doubled is _____.

e. **2 rows of 10**

2 rows of 10 = _____

_____ + _____ = _____

10 doubled is _____.

3. List the totals from Problem 1. _____

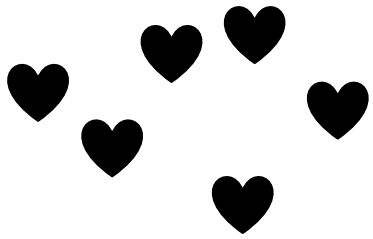
List the totals from Problem 2. _____

Are the numbers you have listed even or not even? _____

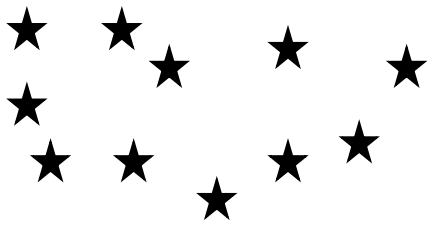
Explain in what ways the numbers are the same and different.

Name _____ Date _____

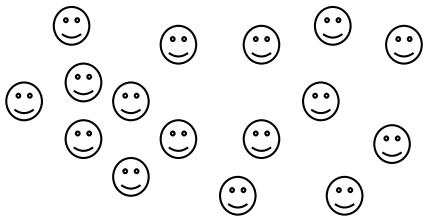
1. Pair the objects to decide if the number of objects is even.



Even/Not Even

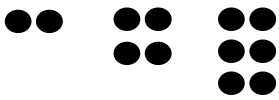


Even/Not Even



Even/Not Even

2. Draw to continue the pattern of the pairs in the space below until you have drawn 10 pairs.

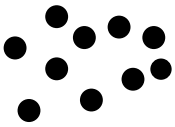


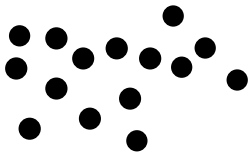
3. Write the number of dots in each array in Problem 2 in order from least to greatest.

4. Circle the array in Problem 2 that has 2 columns of 7.

5. Box the array in Problem 2 that has 2 columns of 9.

6. Redraw the following sets of dots as columns of two or 2 equal rows.

a. 

b. 

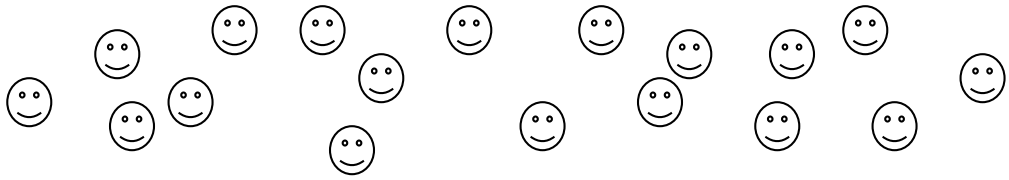
There are _____ dots.

Is ____ an even number? _____

There are _____ dots.

Is ____ an even number? _____

7. Circle groups of two. Count by twos to see if the number of objects is even.



a. There are _____ twos. There are _____ left over.

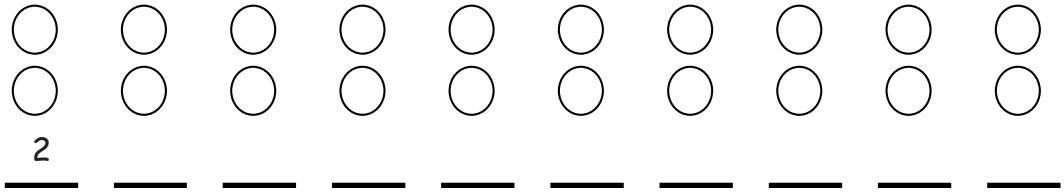
b. Count by twos to find the total.

_____, _____, _____, _____, _____, _____, _____, _____, _____

c. This group has an even number of objects: True or False

Name _____ Date _____

1. Skip-count the columns in the array. The first one has been done for you.



2. a. Solve.

1 + 1 = _____

2 + 2 = _____

3 + 3 =_____

4 + 4 = _____

5 + 5 = _____

6 + 6 = _____

7 + 7 = _____

8 + 8 = _____

9 + 9 = _____

10 + 10 = _____

b. Explain the connection between the array in Problem 1 and the answers in Problem 2(a).

_____

_____

_____

3. a. Fill in the missing numbers on the number path.

20, 22, 24, ____, 28, 30, ____, ____, 36, ____, 40, ____, ____, 46, ____, ____

b. Fill in the odd numbers on the number path.

0, ___, 2, ___, 4, ___, 6, ___, 8 ___, 10, ___, 12, ___, 14, ___, 16, ___, 18, ___, 20, ___

4. Write to identify the **bold** numbers as even or odd. The first one has been done for you.

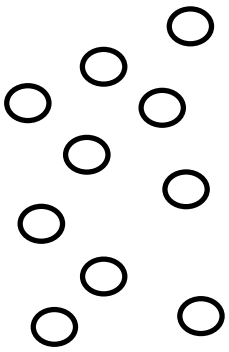
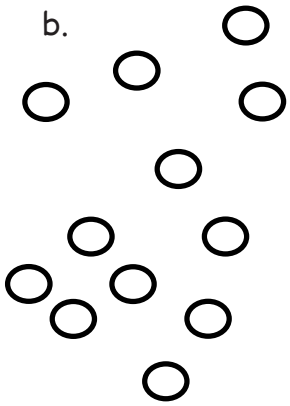
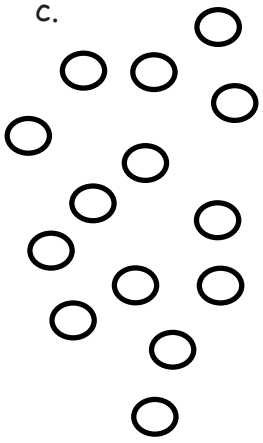
a. **6** + 1 = **7** even + 1 = odd	b. **24** + 1 = **25** ____ + 1 = ____	c. **30** + 1 = **31** ____ + 1 = ____
d. **6** – 1 = **5** ____ - 1 = ____	e. **24** – 1 = **23** ____ - 1 = ____	f. **30** – 1 = **29** ____ - 1 = ____

5. Are the **bold** numbers even or odd? Circle the answer, and explain how you know.

a. **28** even/odd	Explanation:
b. **39** even/odd	Explanation:
c. **45** even/odd	Explanation:
d. **50** even/odd	Explanation:

Name _____ Date _____

1. Use the objects to create an array.

a. 	Array There are an even/odd (circle one) number of circles.	Redraw your picture with 1 *less* circle. There are an even/odd (circle one) number of circles.
b. 	Array There are an even/odd (circle one) number of circles.	Redraw your picture with 1 *more* circle. There are an even/odd (circle one) number of circles.
c. 	Array There are an even/odd (circle one) number of circles.	Redraw your picture with 1 *less* circle. There are an even/odd (circle one) number of circles.

2. Solve. Tell if each number is odd (O) or even (E). The first one has been done for you.

a. 6 + 4 = 10

E + E = E

b. 17 + 2 = _____

_____ + _____ = _____

c. 11 + 13 = _____

_____ + _____ = _____

d. 14 + 8 = _____

_____ + _____ = _____

e. 3 + 9 = _____

_____ + _____ = _____

f. 5 + 14 = _____

_____ + _____ = _____

3. Write two examples for each case. Write if your answers are even or odd. The first one has been started for you.

a. Add an even number to an even number.

32 + 8 = 40 even _____ _____

b. Add an odd number to an even number.

_____ _____

c. Add an odd number to an odd number.

_____ _____

Start of Homework section for Mission 6

Name _____ Date _____

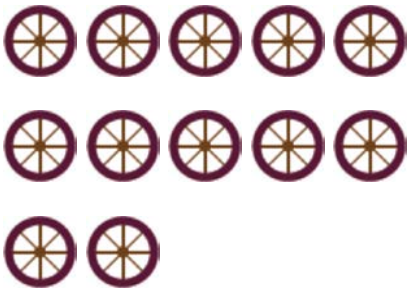
1. Circle groups of two shirts.

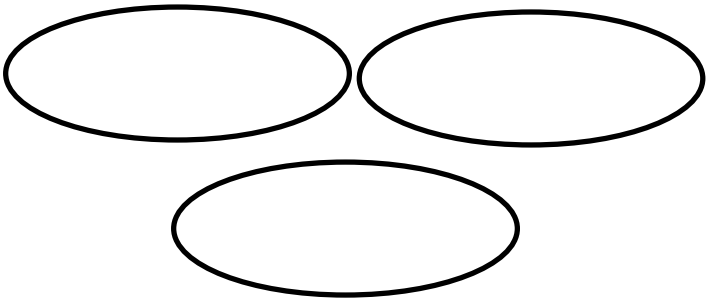
There are _____ groups of two shirts.

2. Circle groups of three pants.

There are _____ groups of three pants.

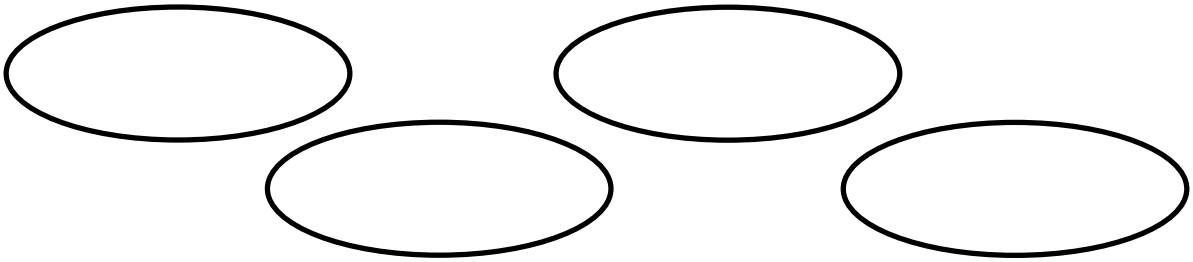
3. Redraw the 12 wheels into 3 equal groups.





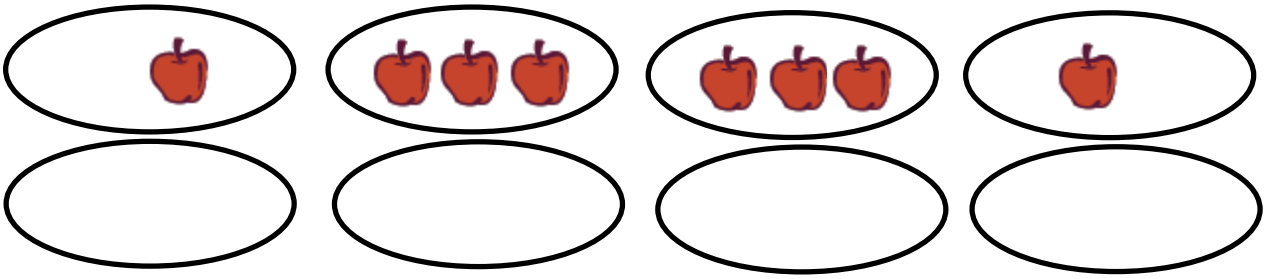
3 groups of _____ wheels

4. Redraw the 12 wheels into 4 equal groups.



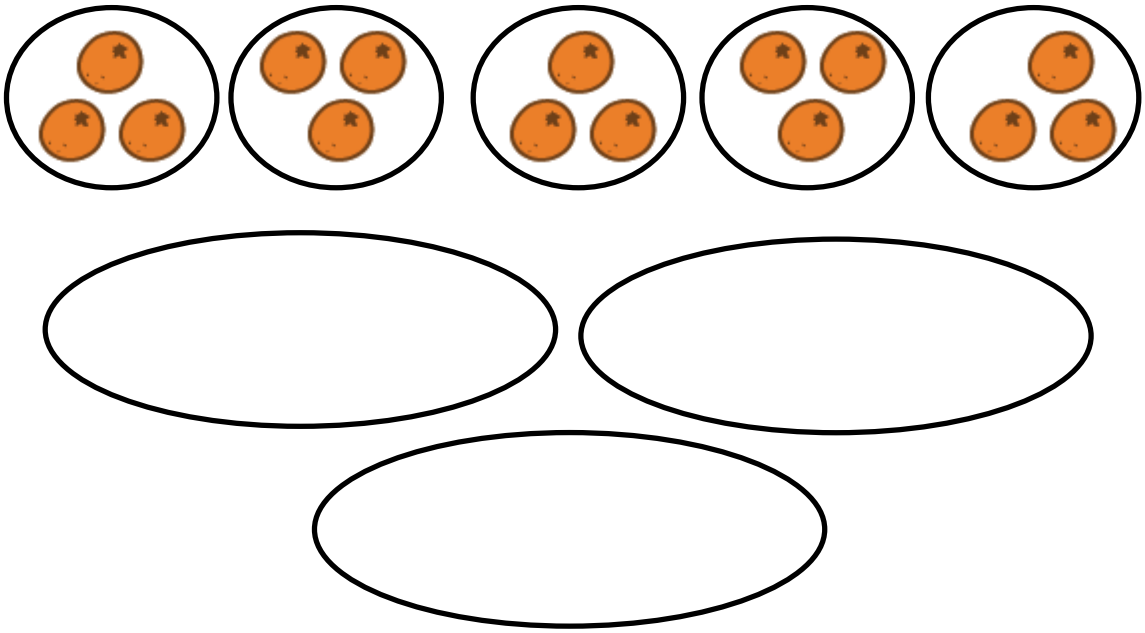
4 groups of _____ wheels

5. Redraw the apples to make each of the 4 groups have an equal amount.



4 groups of _____ apples = _____ apples.

6. Redraw the oranges to make 3 equal groups.



3 groups of _____ oranges = _____ oranges.

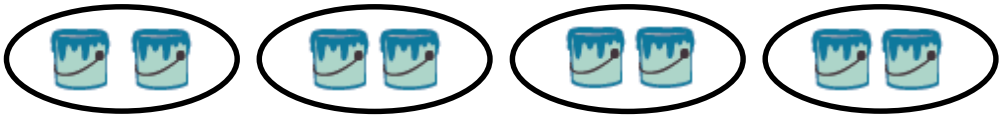
Name _____ Date _____

1. Write a repeated addition equation to show the number of objects in each group. Then, find the total.

a. 

_____ + _____ + _____ = _____

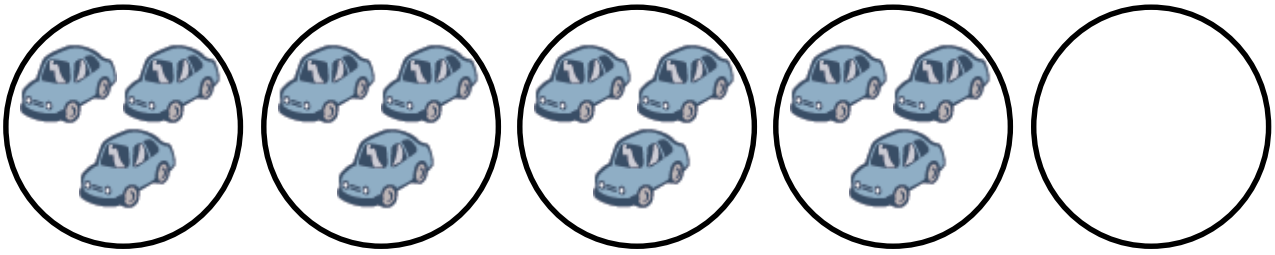
3 groups of _____ = _____

b. 

_____ + _____ + _____ + _____ = _____

4 groups of _____ = _____

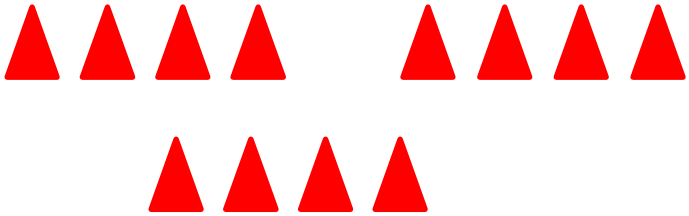
2. Draw 1 more equal group.



_____ + _____ + _____ + _____ + _____ = _____

5 groups of _____ = _____

3. Draw 1 more group of four. Then, write a repeated addition equation to match.



_____ + _____ + _____ + _____ = _____

_____ groups of 4 = _____

4. Draw 2 more equal groups. Then, write a repeated addition equation to match.

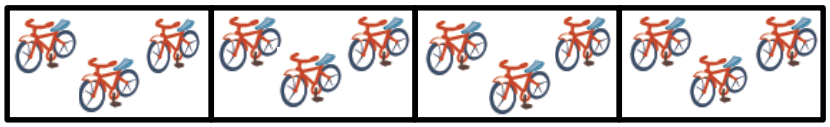
_____ + _____ + _____ + _____ + _____ = _____

_____ groups of 4 = _____

5. Draw 4 groups of 3 circles. Then, write a repeated addition equation to match.

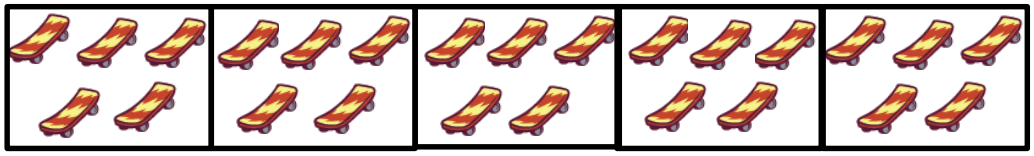
Name _____ Date _____

1. Write a repeated addition equation to find the total of each tape diagram.

a. 

_____ + _____ + _____ + _____ = _____

4 groups of 3 = _____

b. 

_____ + _____ + _____ + _____ + _____ = _____

5 groups of _____ = _____

c.

4	4	4	4

_____ + _____ + _____ + _____= _____

4 groups of _____ = _____

d.

2	2	2	2	2	2

_____ + _____ + _____ + _____ + _____ + _____ = _____

_____ groups of _____ = _____

2. Draw a tape diagram to find the total.

a. 5 + 5 + 5 + 5 = _____

b. 4 + 4 + 4 + 4 + 4 = _____

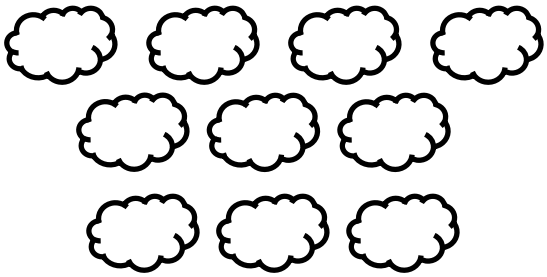
c. 4 groups of 2

d. 5 groups of 3

e. 

Name _____ Date _____

1. Circle groups of five. Then, draw the clouds into two equal rows.



_____

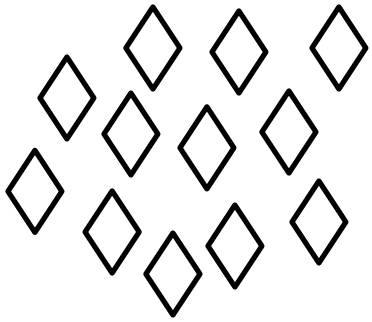
_____

2. Circle groups of four. Redraw the groups of four as rows and then as columns.

_____

_____

_____



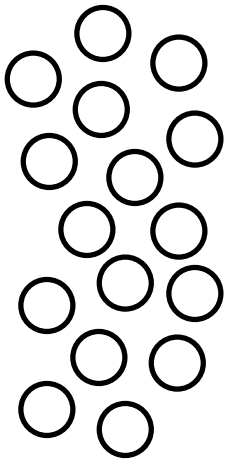
3. Circle groups of four. Redraw the groups of four as rows and then as columns.

_____

_____

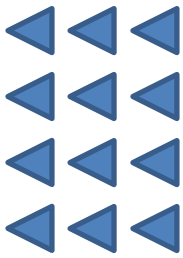
_____

_____



4. Count the objects in the arrays from left to right by rows and by columns. As you count, circle the rows and then the columns.

a. 

b. 

5. Redraw the smiley faces and triangles in Problem 4 as columns of three.

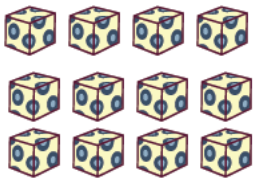
6. Draw an array with 20 triangles.

7. Show a different array with 20 triangles.

Name _____ Date _____

1. Complete each missing part describing each array.

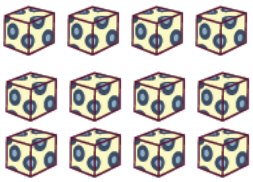
Circle rows.

a. 

3 rows of _____ = _____

___ + ___ + ___ = _____

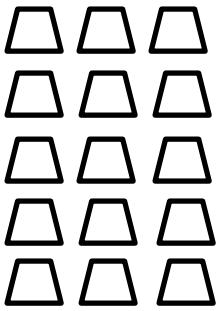
Circle columns.

b. 

4 columns of _____ = _____

___ + ___ + ___ + ___ = _____

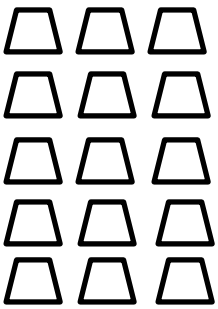
Circle rows.

c. 

5 rows of _____ = _____

___ + ___ + ___ + ___ + ___ = ___

Circle columns.

d. 

3 columns of _____ = _____

___ + ___ + ___ = ___

2. Use the array of smiley faces to answer the questions below.

a. _____ rows of _____ = _____

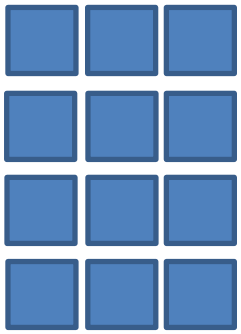
b. _____ columns of _____ = _____

c. _____ + _____ + _____ = _____

d. Add 1 more row. How many smiley faces are there now? _____

e. Add 1 more column to the new array you made in 2(d). How many smiley faces are there now? _____

3. Use the array of squares to answer the questions below.



a. _____ + _____ + _____ + _____ = _____

b. _____ rows of _____ = _____

c. _____ columns of _____ = _____

d. Remove 1 row. How many squares are there now? _____

e. Remove 1 column from the new array you made in 3(d). How many squares are there now? _____

Name _____ Date _____

1. a. One row of an array is drawn below. Complete the array with X's to make 4 rows of 5. Draw horizontal lines to separate the rows.

X X X X X

b. Draw an array with X's that has 4 columns of 5. Draw vertical lines to separate the columns. Fill in the blanks.

_____ + _____ + _____ + _____= _____

4 rows of 5 = _____

6 columns of 5 = _____

2. a. Draw an array of X's with 3 columns of 4.

b. Draw an array of X's with 3 rows of 4. Fill in the blanks below.

_____ + _____ + _____ = _____

3 columns of 4 = _____

3 rows of 4 = _____

In the following problems, separate the rows or columns with horizontal or vertical lines.

3. Draw an array of X's with 3 rows of 3.

_____ + _____ + _____ = _____

3 rows of 3 = _____

4. Draw an array of X's with 2 more rows of 3 than the array in Problem 3. Write a repeated addition equation to find the total number of X's.

5. Draw an array of X's with 1 less column than the array in Problem 4. Write a repeated addition equation to find the total number of X's.

Name _____ Date _____

Draw an array for each word problem. Write a repeated addition equation to match each array.

1. Melody stacked her blocks in 3 columns of 4. How many blocks did Melody stack in all?

2. Marty arranged the desks in the classroom into 5 equal rows. There were 5 desks in each row. How many desks were arranged?

3. The baker made 5 trays of muffins. Each tray holds 4 muffins. How many muffins did the baker make?

4. The library books were on the shelf in 4 stacks of 4. How many books were on the shelf?

Draw a tape diagram for each word problem. Write a repeated addition equation to match each tape diagram.

5. Mary placed stickers in columns of 4. She made 5 columns. How many stickers did she use?

6. Jayden put his baseball cards into 5 columns of 3 in his book. How many cards did Jayden put in his book?

Draw a tape diagram and an array. Then, write a repeated addition equation to match.

7. The game William bought came with 3 bags of marbles. Each bag had 3 marbles inside. How many total marbles came with the game?

Name _____ Date _____

Cut out the square tiles below, and construct the following arrays with no gaps or overlaps. On the line, write a repeated addition equation to match each construction on the line.

1. a. Construct a rectangle with 2 rows of 4 tiles.

_____

b. Construct a rectangle with 2 columns of 4 tiles.

_____

2. a. Construct a rectangle with 3 rows of 2 tiles.

_____

b. Construct a rectangle with 3 columns of 2 tiles.

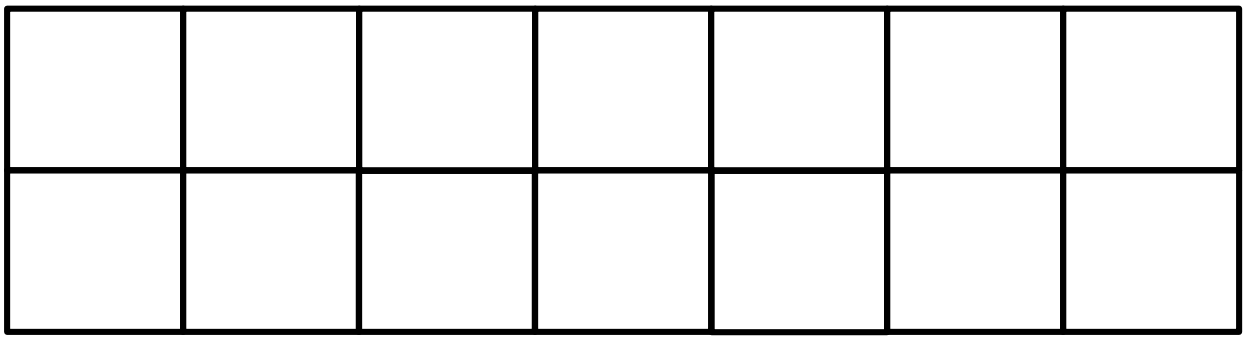
_____

3. a. Construct a rectangle using 10 tiles.

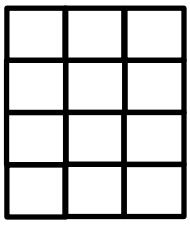
_____

b. Construct a rectangle using 12 tiles.

_____



4. a. What shape is the array pictured below? _____



b. In the space below, redraw the above shape with one more column.

c. What shape is the array now? _____

d. Draw a different array of tiles that is the same shape as 4(c).

Name _____ Date _____

1. Cut out and trace the square tile to draw an array with 2 rows of 4.

Cut out and trace.

2 rows of 4 = _____

_____ + _____ = _____

2. Trace the square tile to make an array with 3 columns of 5.

3 columns of 5 = _____

_____ + _____ + _____ = _____

3. Complete the following arrays without gaps or overlaps. The first tile has been drawn for you.

   a. 4 rows of 5

   b. 5 columns of 2

   c. 4 columns of 3

Name _____ Date _____

Cut out and use your square tiles to complete the steps for each problem.

Problem 1

Step 1: Construct a rectangle with 5 rows of 2.

Step 2: Separate 2 rows of 2.

Step 3: Write a number bond to show the whole and two parts. Write a repeated addition sentence to match each part of your number bond.

Problem 2

Step 1: Construct a rectangle with 4 columns of 3.

Step 2: Separate 2 columns of 3.

Step 3: Write a number bond to show the whole and two parts. Write a repeated addition sentence to match each part of your number bond.

3. Use 9 square tiles to construct a rectangle with 3 rows.

   a. _____ rows of _____ = _____

   b. Remove 1 row. How many squares are there now? _____

   c. Remove 1 column from the new rectangle you made in 3(b). How many squares are there now? _____

4. Use 14 square tiles to construct a rectangle.

   a. _____ rows of _____ = _____

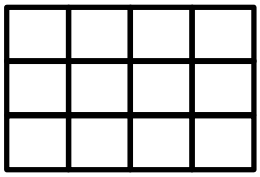
   b. Remove 1 row. How many squares are there now? _____

   c. Remove 1 column from the new rectangle you made in 4(b). How many squares are there now? _____

Name _____ Date _____

1. Imagine that you have just cut this rectangle into rows.

   a. What do you see? Draw a picture.



   How many squares are in each row? _____

   b. Imagine that you have just cut this rectangle into columns. What do you see? Draw a picture.

   How many squares are in each column? _____

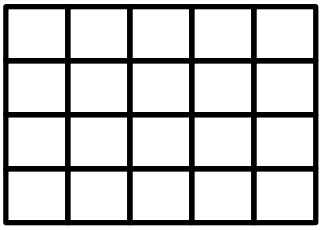
2. Create another rectangle using the same number of squares.

   How many squares are in each row? _____

   How many squares are in each column? _____

3. Imagine that you have just cut this rectangle into rows.

   a. What do you see? Draw a picture.



   How many squares are in each row? _____

   b. Imagine that you have just cut this rectangle into columns. What do you see? Draw a picture.

   How many squares are in each column? _____

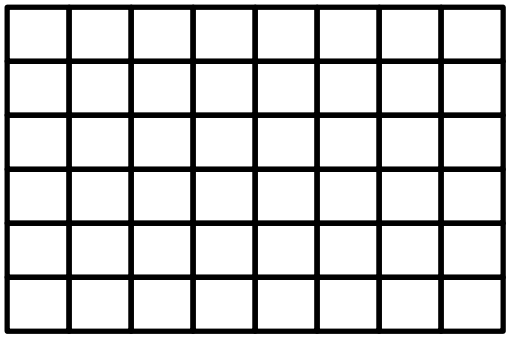
4. Create another rectangle using the same number of squares.

   How many squares are in each row? _____

   How many squares are in each column? _____

Name _____ Date _____

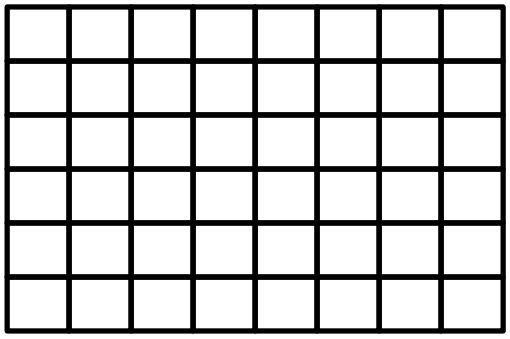
1. Shade in an array with 3 rows of 2.



Write a repeated addition equation for the array.

_____

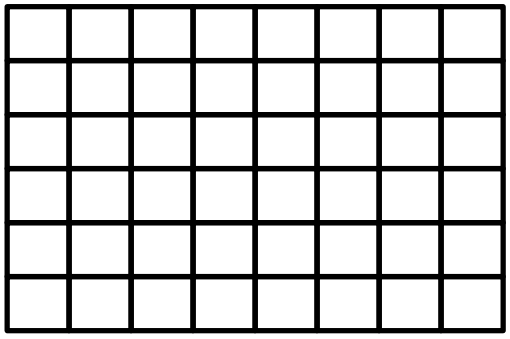
2. Shade in an array with 2 rows of 4.



Write a repeated addition equation for the array.

_____

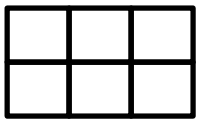
3. Shade in an array with 4 columns of 5.



Write a repeated addition equation for the array.

_____

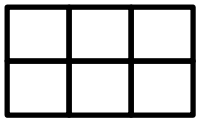
4. Draw one more column of 2 to make a new array.



Write a repeated addition equation for the new array.

_____

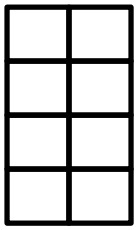
5. Draw one more row of 3 and then one more column to make a new array.



Write a repeated addition equation for the new array.

_____

6. Draw one more row and then two more columns to make a new array.

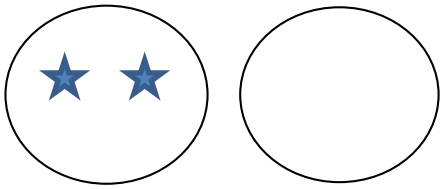


Write a repeated addition equation for the new array.

_____

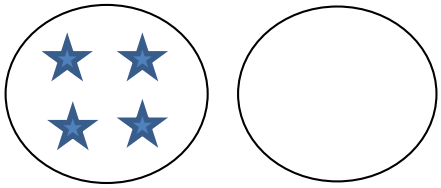
Name _____ Date _____

1. Draw to double the group you see. Complete the sentences, and write an addition equation.

a. 

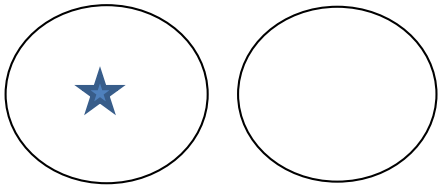
There are _____ stars in each group.

_____ + _____ = _____

b. 

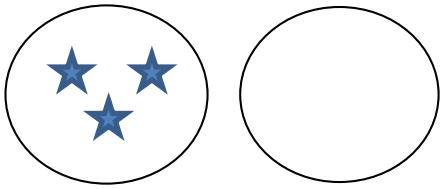
There are _____ stars in each group.

_____ + _____ = _____

c. 

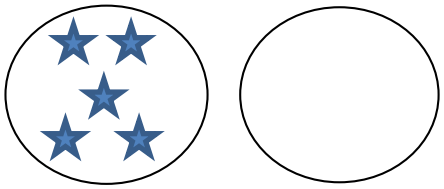
There is _____ star in each group.

_____ + _____ = _____

d. 

There are _____ stars in each group.

_____ + _____ = _____

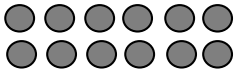
e. 

There are _____ stars in each group.

_____ + _____ = _____

2. Draw an array for each set. Complete the sentences. The first one has been drawn for you.

a. **2 rows of 6**



2 rows of 6 = _____

_____ + _____ = _____

6 doubled is _____.

b. **2 rows of 7**

2 rows of 7 = _____

_____ + _____ = _____

7 doubled is _____.

c. **2 rows of 8**

_____ rows of _____ = _____

_____ + 8 = _____

8 doubled is _____.

d. **2 rows of 9**

2 rows of 9 = _____

_____ + _____ = _____

9 doubled is _____.

e. **2 rows of 10**

_____ rows of _____ = _____

10 + _____ = _____

10 doubled is _____.

3. List the totals from Problem 1. _____

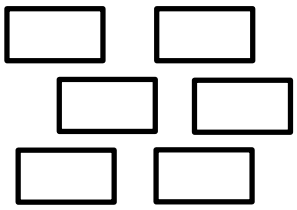
List the totals from Problem 2. _____

Are the numbers you have listed even or not even? _____

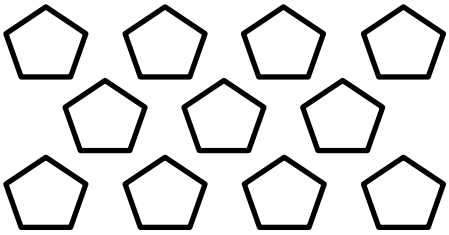
Explain in what ways the numbers are the same and different.

Name _____ Date _____

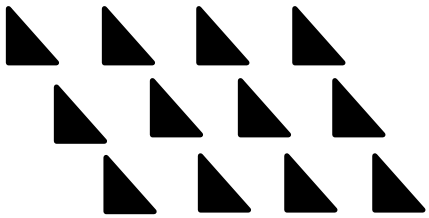
1. Pair the objects to decide if the number of objects is even.



Even/Not Even

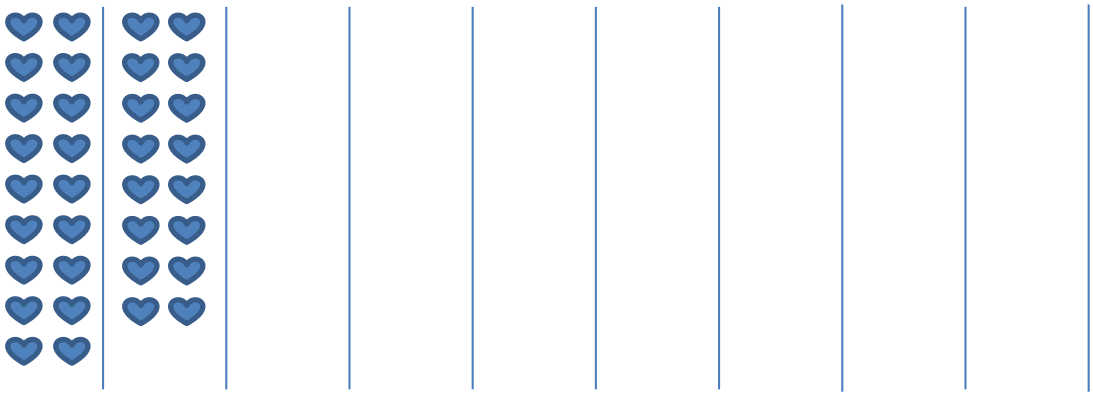


Even/Not Even



Even/Not Even

2. Draw to continue the pattern of the pairs in the spaces below until you have drawn zero pairs.



3. Write the number of hearts in each array in Problem 2 in order from greatest to least.

4. Circle the array in Problem 2 that has 2 columns of 6.

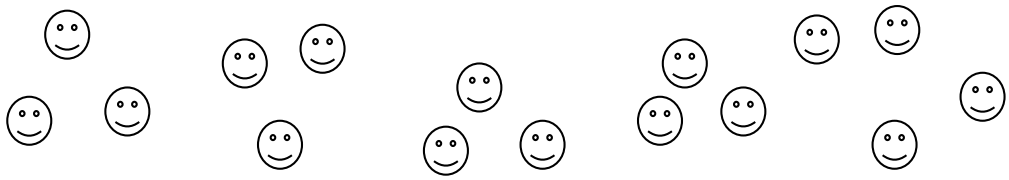
5. Box the array in Problem 2 that has 2 columns of 8.

6. Redraw the set of stars as columns of two or 2 equal rows.

There are _____ stars.

Is ____ an even number? _____

7. Circle groups of two. Count by twos to see if the number of objects is even.



a. There are _____ twos. There are _____ left over.

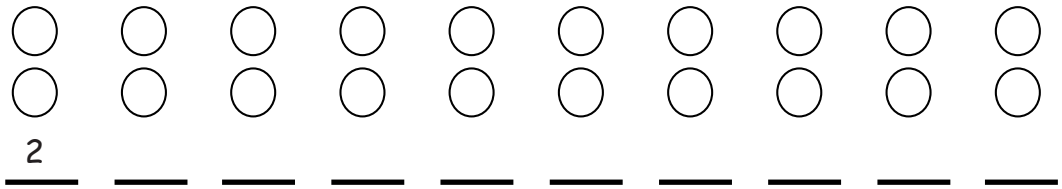
b. Count by twos to find the total.

_____, _____, _____, _____, _____, _____, _____, _____

c. This group has an even number of objects: True or False.

Name _____ Date _____

1. Skip-count the columns in the array. The first one has been done for you.



2. a. Solve.

1 + 1 = _____	6 + 6 = _____
2 + 2 = _____	7 + 7 = _____
3 + 3 = _____	8 + 8 = _____
4 + 4 = _____	9 + 9 = _____
5 + 5 = _____	10 + 10 = _____

b. How is the array in Problem 1 related to the answers in Problem 2(a)?

_____

_____

_____

3. Fill in the missing even numbers on the number path.

18, 20, _____, _____, 26, _____ 30, _____, 34, _____, 38, 40, _____, _____

4. Fill in the missing odd numbers on the number path.

0, _____, 2, _____, 4, _____, 6, _____, 8, _____, 10, _____, 12, _____, 14

5. Write to identify the **bold** numbers as even or odd. The first one has been done for you.

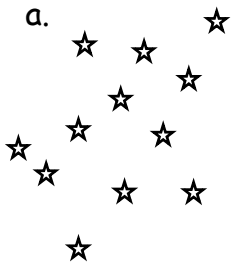
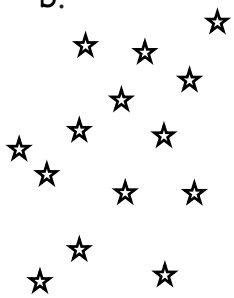
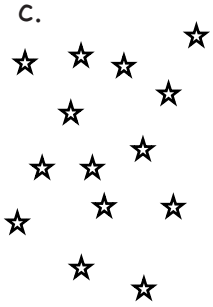
a. **4** + 1 = **5** even + 1 = odd	b. **13** + 1 = **14** _____ + 1 = _____	c. **20** + 1 = **21** _____ + 1 = _____
d. **8** – 1 = **7** _____ - 1 = _____	e. **16** – 1 = **15** _____ - 1 = _____	f. **30** – 1 = **29** _____ - 1 = _____

6. Are the **bold** numbers even or odd? Circle the answer, and explain how you know.

a. **21** even/odd	Explanation:
b. **34** even/odd	Explanation:

Name _____ Date _____

1. Use the objects to create an array with 2 rows.

a. 	Array with 2 rows There are an even/odd (circle one) number of stars.	Redraw your picture with 1 *less* star. There are an even/odd (circle one) number of stars.
b. 	Array with 2 rows There are an even/odd (circle one) number of stars.	Redraw your picture with 1 *more* star. There are an even/odd (circle one) number of stars.
c. 	Array with 2 rows There are an even/odd (circle one) number of stars.	Redraw your picture with 1 *less* star. There are an even/odd (circle one) number of stars.

2. Solve. Tell if each number is odd (O) or even (E) on the line below.

a. 6 + 6 = _____

_____ + _____ = _____

b. 8 + 13 = _____

_____ + _____ = _____

c. 9 + 15 = _____

_____ + _____ = _____

d. 17 + 8 = _____

_____ + _____ = _____

e. 7 + 8 = _____

_____ + _____ = _____

f. 9 + 11 = _____

_____ + _____ = _____

g. 7 + 14 = _____

_____ + _____ = _____

h. 9 + 9 = _____

_____ + _____ = _____

3. Write three number sentence examples to prove that each statement is correct.

Even + Even = Even	Even + Odd = Odd	Odd + Odd = Even

4. Write two examples for each case. Next to your answer, write if your answers are even or odd. The first one has been done for you.

   a. Add an even number to an even number.

   32 + 8 = 40 even _____ _____

   b. Add an odd number to an even number.

   _____ _____

   c. Add an odd number to an odd number.

   _____ _____