

MSP

Grade 2 Module 6

Lesson Refreshers

&

Homework Starters

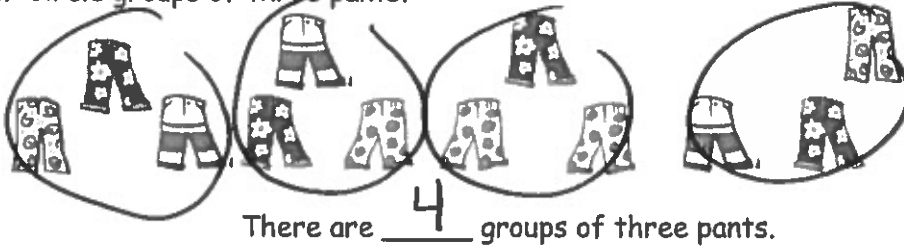
Name _____

Date _____

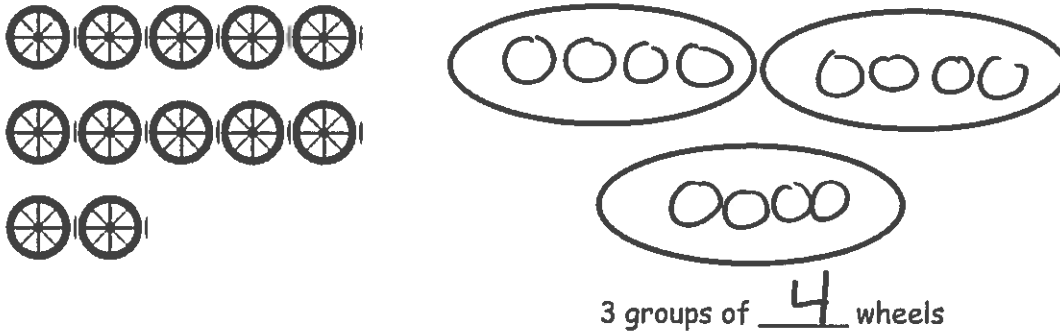
1. Circle groups of two shirts.



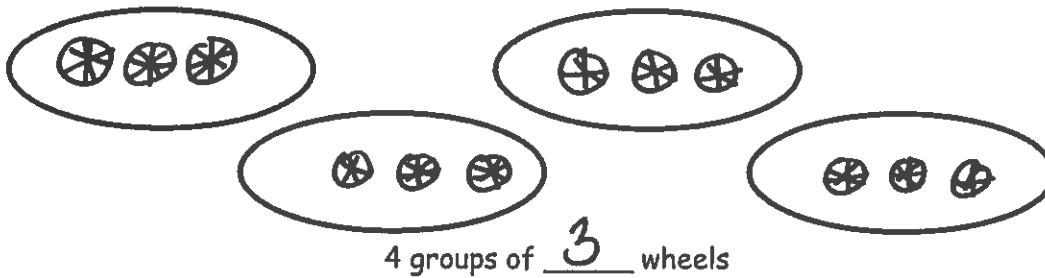
2. Circle groups of three pants.



3. Redraw the 12 wheels into 3 equal groups.

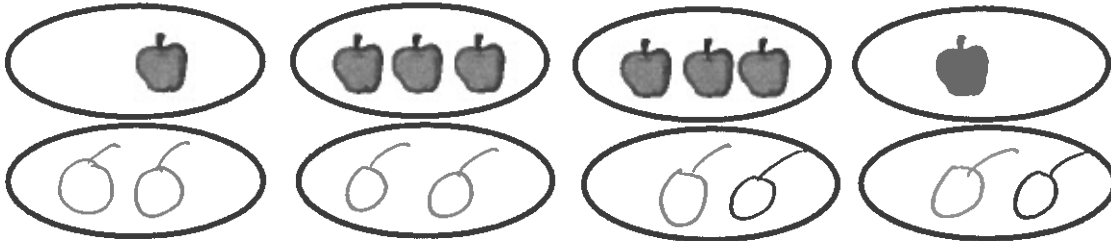


4. Redraw the 12 wheels into 4 equal groups.



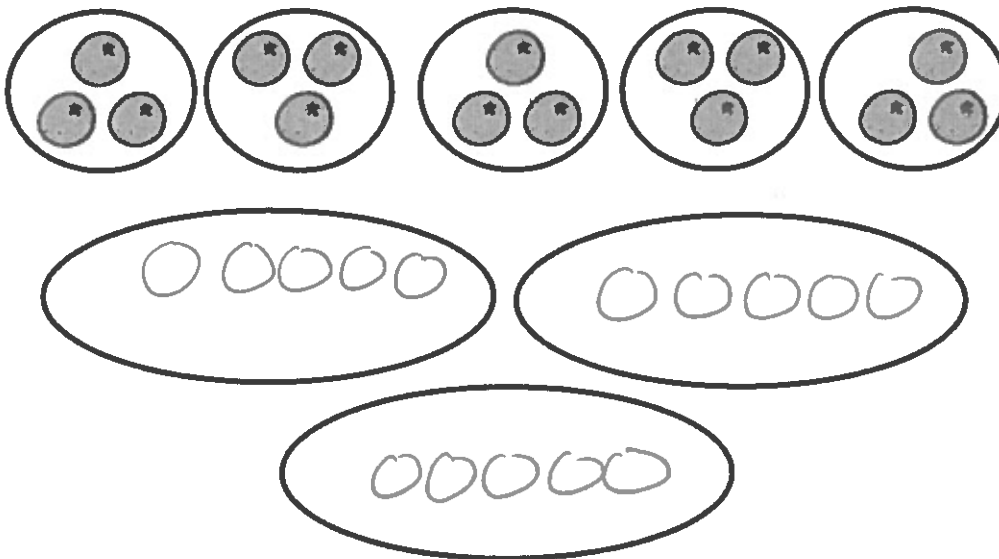
AK

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



4 groups of 2 apples = 8 apples.

6. Redraw the oranges to make 3 equal groups.




3 groups of 5 oranges = 15 oranges.

Name _____


Date _____

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

a. 

$$\underline{3} + \underline{3} + \underline{3} = \underline{9}$$

3 groups of 3 = 9

b. 

$$\underline{2} + \underline{2} + \underline{2} + \underline{2} = \underline{8}$$

4 groups of 2 = 8

2. Draw 1 more equal group.



$$\underline{3} + \underline{3} + \underline{3} + \underline{3} + \underline{3} = \underline{15}$$

5 groups of 3 = 15

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



$$\underline{4} + \underline{4} + \underline{4} + \underline{4} = \underline{16}$$

4 groups of 4 = 16

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



$$\underline{4} + \underline{4} + \underline{4} + \underline{4} + \underline{4} = \underline{20}$$

5 groups of 4 = 20

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



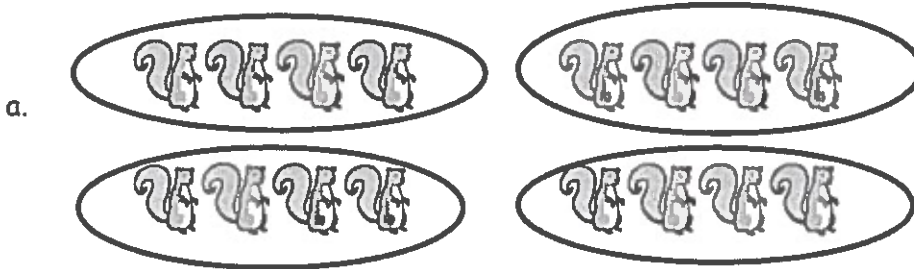
$$3 + 3 + 3 + 3 = 12$$

Addends are numbers that are added together.

Name _____

Date _____

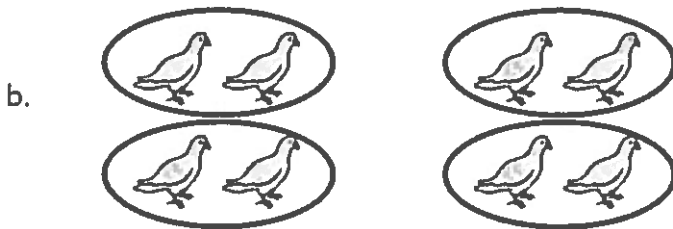
1. Write a repeated addition equation to match the picture. Then, group the addends into pairs to show a more efficient way to add.



$$\begin{array}{r} 4 + 4 + 4 + 4 = 16 \\ \hline \end{array}$$

$$\begin{array}{r} 8 + 8 = 16 \\ \hline \end{array}$$


4 groups of 4 = 2 groups of 8

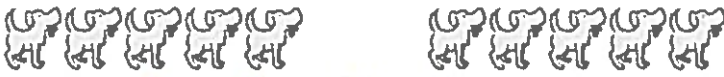


$$\begin{array}{r} 2 + 2 + 2 + 2 = 8 \\ \hline \end{array}$$

$$\begin{array}{r} 4 + 4 = 8 \\ \hline \end{array}$$

4 groups of 2 = 2 groups of 4

c. 





$$\underline{5} + \underline{5} + \underline{5} + \underline{5} = \underline{20}$$

$$\underline{10} + \underline{10} = \underline{20}$$

4 groups of 5 = 2 groups of 10

2. Write a repeated addition equation to match the picture. Then, group addends into pairs, and add to find the total.


a. 




$$\underline{3} + \underline{3} + \underline{3} + \underline{3} + \underline{3} = \underline{15}$$

$$\underline{6} + \underline{6} + 3 = \underline{15}$$

$$\underline{12} + 3 = \underline{15}$$

b. 



$$\underline{2} + \underline{2} + \underline{2} + \underline{2} + \underline{2} = \underline{10}$$

$$\underline{4} + \underline{4} + 2 = \underline{10}$$

$$\underline{8} + 2 = \underline{10}$$

Kraus

Name _____

Date _____

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



$$\underline{3} + \underline{3} + \underline{3} + \underline{3} = \underline{12}$$

4 groups of 3 = 12



$$\underline{5} + \underline{5} + \underline{5} + \underline{5} + \underline{5} = \underline{25}$$

5 groups of 5 = 25



$$\underline{4} + \underline{4} + \underline{4} + \underline{4} = \underline{16}$$

4 groups of 4 = 16



$$\underline{2} + \underline{2} + \underline{2} + \underline{2} + \underline{2} + \underline{2} = \underline{12}$$

6 groups of 2 = 12

Klaus

2. Draw a tape diagram to find the total.

a. $5 + 5 + 5 + 5 = \underline{20}$



b. $4 + 4 + 4 + 4 + 4 = \underline{20}$



c. 4 groups of 2 $2 + 2 + 2 + 2 = 8$



d. 5 groups of 3 $3 + 3 + 3 + 3 + 3 = 15$



e.



$4 + 4 + 4 = 12$

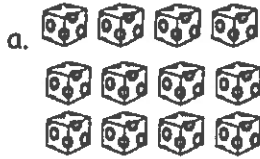
Name _____

Date _____

1. Complete each missing part describing each array.

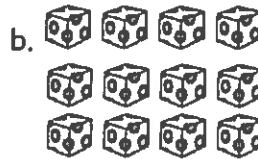
An array is an arrangement of objects in rows and columns.

Circle rows.



3 rows of 4 = 12
4 + 4 + 4 = 12

Circle columns.

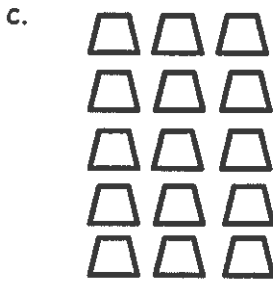


4 columns of 3 = 12
3 + 3 + 3 + 3 = 12

Rows are the horizontal groups in an array.

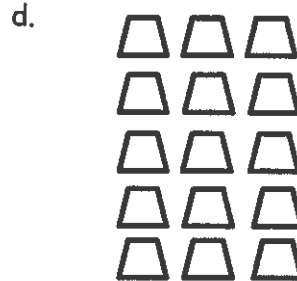
Columns are the vertical groups in an array.

Circle rows.

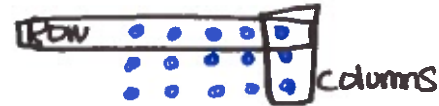


5 rows of 3 = 15
3 + 3 + 3 + 3 + 3 = 15

Circle columns.



3 columns of 5 = 15
5 + 5 + 5 = 15

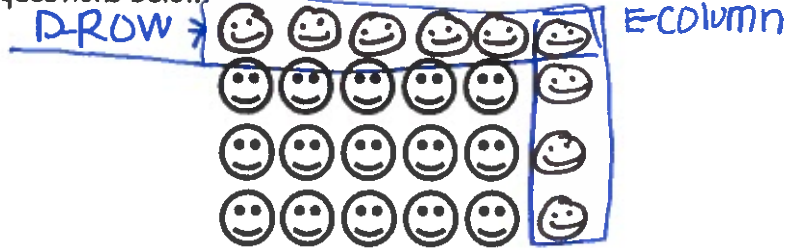


2. Use the array of smiley faces to answer the questions below.

a. 3 rows of 5 = 15

b. 5 columns of 3 = 15

c. 5 + 5 + 5 = 15



d. Add 1 more row. How many smiley faces are there now? 20

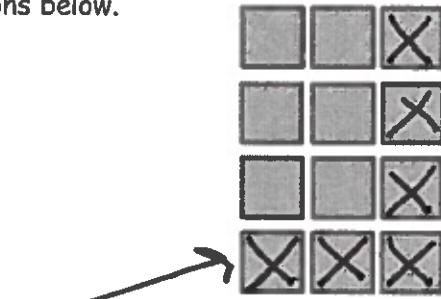
e. Add 1 more column to the new array you made in 2(d). How many smiley faces are there now? 24

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

a. 3 + 3 + 3 + 3 = 12

b. 4 rows of 3 = 12

c. 3 columns of 4 = 12



d. Remove 1 row. How many squares are there now? 9

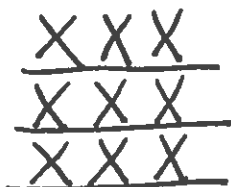
e. Remove 1 column from the new array you made in 3(d). How many squares are there now? 6

Klaus



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

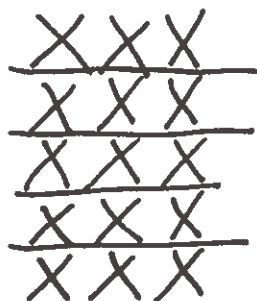
3. Draw an array of Xs with 3 rows of 3.



$$\underline{3} + \underline{3} + \underline{3} = \underline{9}$$

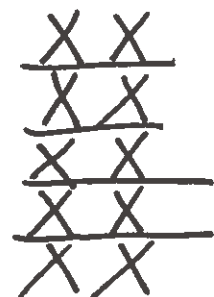
3 rows of 3 = 9

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



$$3 + 3 + 3 + 3 + 3 = 15$$

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



$$2 + 2 + 2 + 2 + 2 = 10$$

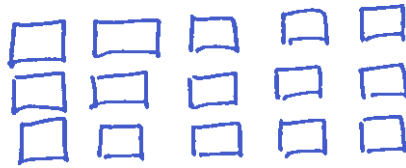
4. Use the array of squares to answer the questions below.



- a. There are 2 squares in one row.
- b. There are 5 squares in one column.
- c. 5 + 5 = 10
- d. 2 columns of 5 = 5 rows of 2 = 10 total.

5.

a. Draw an array with 15 squares that has 3 squares in each column.



b. Write a repeated addition equation to match the array.

$$3 + 3 + 3 + 3 + 3 = 15$$

6.

a. Draw an array with 20 squares that has 5 squares in each column.



b. Write a repeated addition equation to match the array.

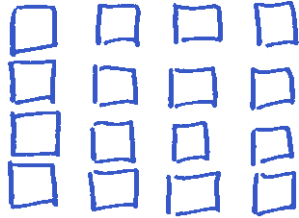
$$5 + 5 + 5 + 5 = 20$$

c. Draw a tape diagram to match your repeated addition equation and array.



Kwan

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

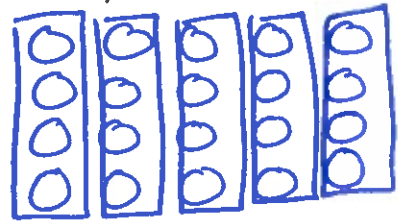
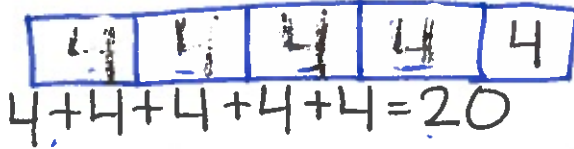


$$4 + 4 + 4 + 4 = 16$$

There are 16 books 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?

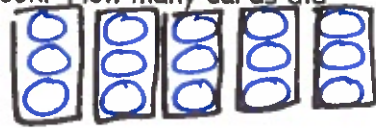


Mary used 20 stickers.

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



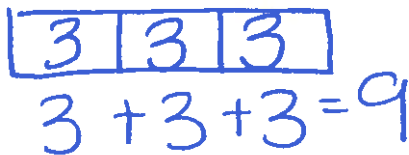
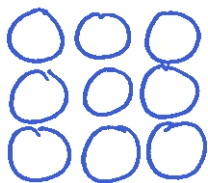
$$3 + 3 + 3 + 3 + 3 = 15$$



Jayden put 15 cards in his book.

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

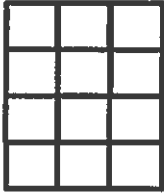
7. The game William bought came with 3 bags of marbles. Each bag had 3 marbles inside. How many total marbles came with the game?



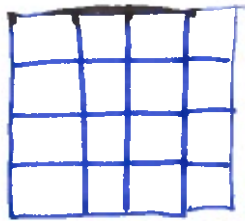
There are 9 marbles with the game.

4.

a. What shape is the array pictured below? rectangle

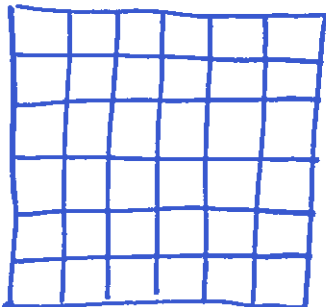
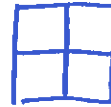
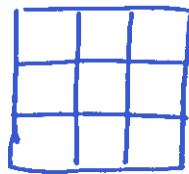
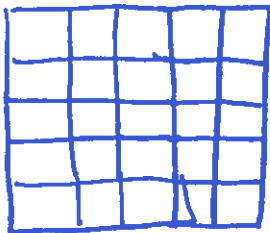


b. In the space below, redraw the above shape with one more column.



c. What shape is the array now? square

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



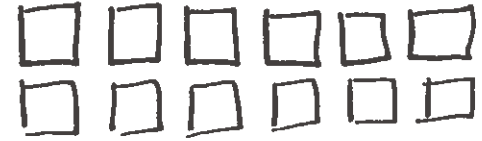
Hand

3.

a. Construct an array with 12 squares.

b. Write a repeated addition equation to match the array.

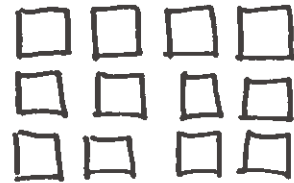
 $2+2+2+2+2+2=12$



c. Rearrange the 12 squares into a different array.

d. Write a repeated addition equation to match the new array.

$4+4+4=12$

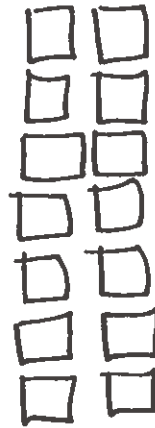


4. Construct 2 arrays with 14 squares.

a. 2 rows of 7 = 14



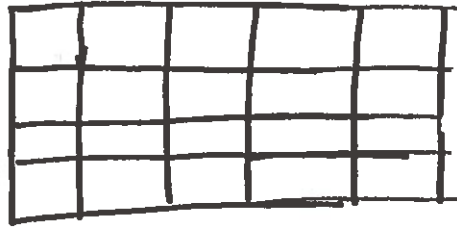
b. 2 rows of 7 = 7 rows of 2



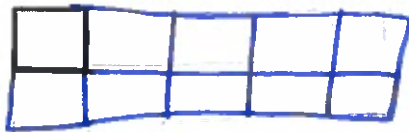
Kauf

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

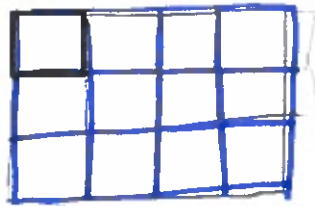
a. 4 rows of 5
 horizontal groups in an array.

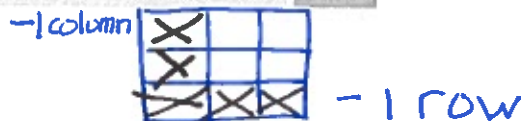


b. 5 columns of 2
 vertical groups in an array.



c. 4 columns of 3
 vertical groups in an array.





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

a. 3 rows of 3 = 9

b. Remove 1 row. How many squares are there now? 6

c. Remove 1 column from the new rectangle you made in 3(b). How many squares are there now? 4

4. Use 14 square tiles to construct a rectangle.

a. _____ rows of _____ = _____

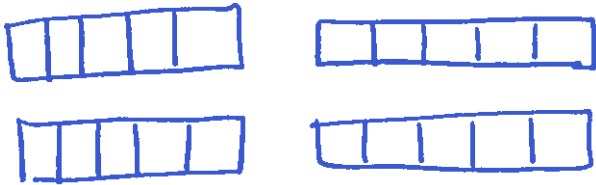
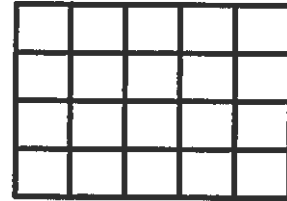
b. Remove 1 row. How many squares are there now? _____

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

Klaus

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? 5

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

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

How many squares are in each row? 10

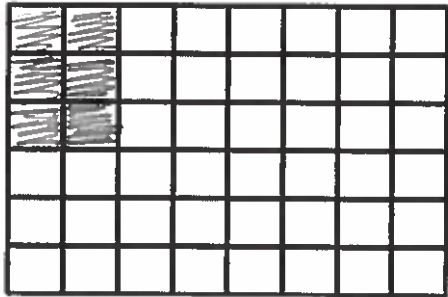
How many squares are in each column? 2



Name _____

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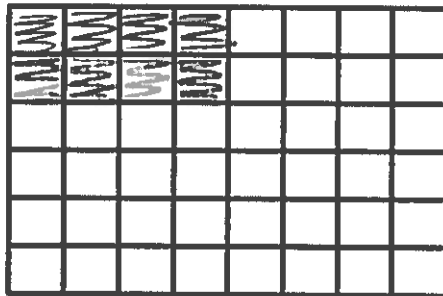
1. Shade in an array with 3 rows of 2.



Write a repeated addition equation for the array.

$$\begin{array}{r} 2 + 2 + 2 = 6 \text{ or} \\ \hline 3 + 3 = 6 \end{array}$$

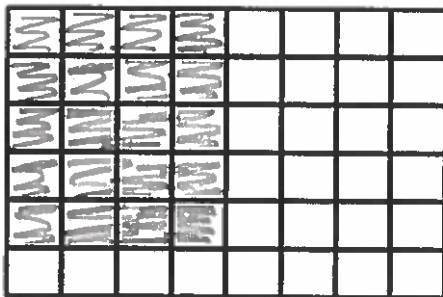
2. Shade in an array with 2 rows of 4.



Write a repeated addition equation for the array.

$$\begin{array}{r} 4 + 4 = 8 \\ \hline 2 + 2 + 2 + 2 = 8 \end{array}$$

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

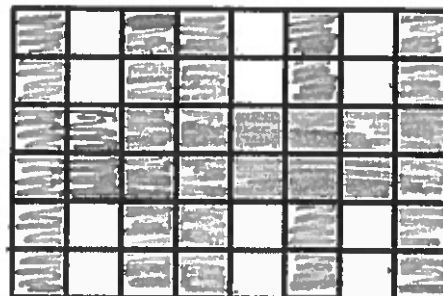
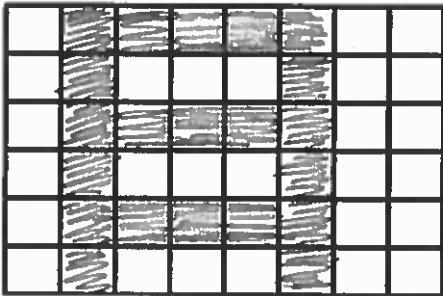


Write a repeated addition equation for the array.

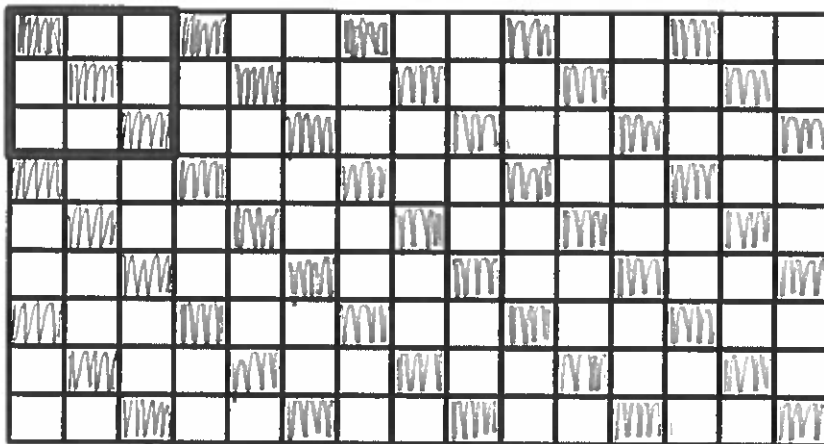
$$\begin{array}{r} 4 + 4 + 4 + 4 + 4 = 20 \\ \hline 5 + 5 + 5 + 5 = 20 \end{array}$$

Khan

Create two different designs.



- Use colored pencils to create a design in the bolded square section. Create a tessellation by repeating the design throughout.



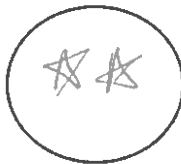
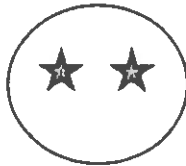
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Name _____

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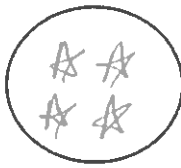
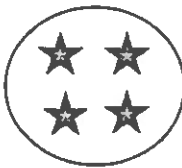
1. Draw to double the group you see. Complete the sentences, and write an addition equation.

a.



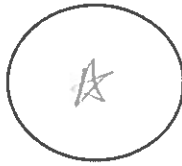
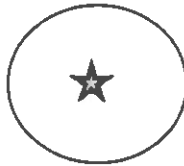
There are 2 stars in each group.
2 + 2 = 4

b.



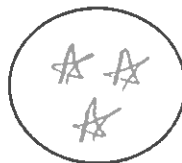
There are 4 stars in each group.
4 + 4 = 8

c.



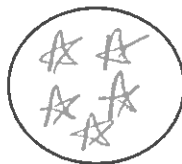
There is 1 star in each group.
1 + 1 = 2

d.



There are 3 stars in each group.
3 + 3 = 6

e.



There are 5 stars in each group.
5 + 5 = 10

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 = 12

$$\underline{6} + \underline{6} = \underline{12}$$

6 doubled is 12.

b. 2 rows of 7



2 rows of 7 = 14

$$\underline{7} + \underline{7} = \underline{14}$$

7 doubled is 14.

c. 2 rows of 8



2 rows of 8 = 16

$$\underline{8} + 8 = \underline{16}$$

8 doubled is 16.

d. 2 rows of 9



2 rows of 9 = 18

$$\underline{9} + \underline{9} = \underline{18}$$

9 doubled is 18.

e. 2 rows of 10

2 rows of 10 = 20

$$10 + \underline{10} = \underline{20}$$

10 doubled is 20.

3. List the totals from Problem 1. 2, 4, 6, 8, 10
 List the totals from Problem 2. 12, 14, 16, 18, 20
 Are the numbers you have listed even or not even? even

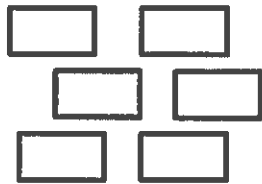
Explain in what ways the numbers are the same and different.

Both sets of numbers have the same number of ones, but the numbers in problem 2 have one more ten than the numbers in problem 1.

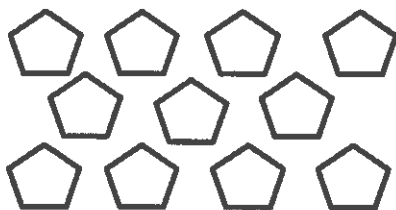
Name _____

Date _____

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



Even/Not Even

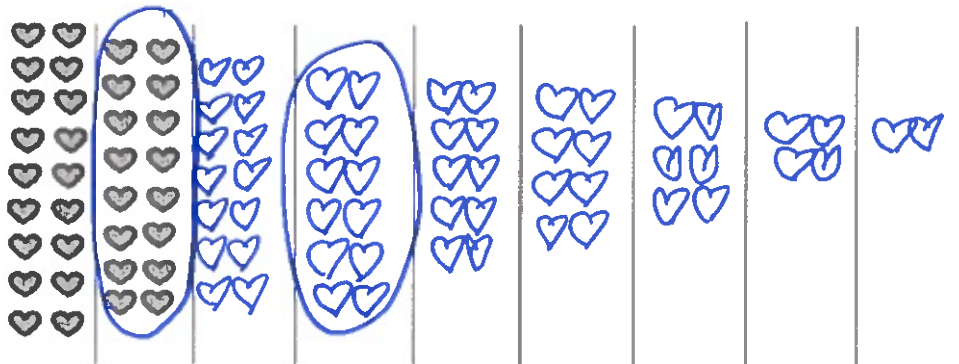


Even/Not Even



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.

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

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 12 stars.

Is 12 an even number? yes

* Even numbers are whole numbers whose last digit is 0, 2, 4, 6, or 8.

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

a. There are 8 twos. There are none left over.

b. Count by twos to find the total.
2, 4, 6, 8, 10, 12, 14, 16

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

★ Odd numbers are any numbers that aren't even.
 ★ Even numbers are whole numbers whose last digit is 0, 2, 4, 6, or 8.

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

0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14

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

<p>a.</p> $4 + 1 = 5$ <p><u>even</u> + 1 = <u>odd</u></p>	<p>b.</p> $13 + 1 = 14$ <p><u>odd</u> + 1 = <u>even</u></p>	<p>c.</p> $20 + 1 = 21$ <p><u>even</u> + 1 = <u>odd</u></p>
<p>d.</p> $8 - 1 = 7$ <p><u>even</u> - 1 = <u>odd</u></p>	<p>e.</p> $16 - 1 = 15$ <p><u>even</u> - 1 = <u>odd</u></p>	<p>f.</p> $30 - 1 = 29$ <p><u>even</u> - 1 = <u>odd</u></p>

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

<p>a.</p> <p>21</p> <p>even/odd</p>	<p>Explanation:</p> <p>The number in the ones place is a 1. 1 is not even so it is odd.</p>
<p>b.</p> <p>34</p> <p>even/odd</p>	<p>Explanation:</p> <p>The number in the ones place is a 4. 4 is an even number so it's even.</p>

Koala

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

a. $\begin{array}{r} 6 \\ \underline{E} \end{array} + \begin{array}{r} 6 \\ \underline{E} \end{array} = \frac{12}{\underline{E}}$

e. $\begin{array}{r} 7 \\ \underline{O} \end{array} + \begin{array}{r} 8 \\ \underline{E} \end{array} = \frac{15}{\underline{O}}$

b. $\begin{array}{r} 8 \\ \underline{E} \end{array} + \begin{array}{r} 13 \\ \underline{O} \end{array} = \frac{21}{\underline{O}}$

f. $\begin{array}{r} 9 \\ \underline{O} \end{array} + \begin{array}{r} 11 \\ \underline{O} \end{array} = \frac{20}{\underline{E}}$

c. $\begin{array}{r} 9 \\ \underline{O} \end{array} + \begin{array}{r} 15 \\ \underline{O} \end{array} = \frac{24}{\underline{E}}$

g. $\begin{array}{r} 7 \\ \underline{O} \end{array} + \begin{array}{r} 14 \\ \underline{E} \end{array} = \frac{21}{\underline{O}}$

d. $\begin{array}{r} 17 \\ \underline{O} \end{array} + \begin{array}{r} 8 \\ \underline{E} \end{array} = \frac{25}{\underline{O}}$

h. $\begin{array}{r} 9 \\ \underline{O} \end{array} + \begin{array}{r} 9 \\ \underline{O} \end{array} = \frac{18}{\underline{E}}$

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

Even + Even = Even	Even + Odd = Odd	Odd + Odd = Even
$2 + 2 = 4$	$16 + 7 = 23$	$3 + 3 = 6$
$8 + 8 = 16$	$8 + 7 = 15$	$9 + 9 = 18$
$10 + 10 = 20$	$12 + 3 = 15$	$5 + 5 = 10$

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