Name: _____

Multiples

A **multiple** is the product of a given whole number and another whole number.

1 x 6 = 6	2 x 6 = 12	3 x 6 = 18
4 x 6 = 24	5 x 6 = 30	6 x 6 = 36
6 x 7 = 42	6 x 8 = 48	6 x 9 = 54

and so on...

What are the first 6 multiples of 6? **6, 12, 18, 24, 30, and 36**

1. What are the first 4 multiples of 9? _____, _____, _____, and _____

2. Circle the numbers that are multiples of 7.
Cross out the numbers that are not multiples of 7.

1	7	14	17	21	27	35

3. Circle the numbers that are multiples of 8.
Cross out the numbers that are not multiples of 8.

38	40	45	49	64	72	81

4. Are multiples of 4 always even? Explain.

_____

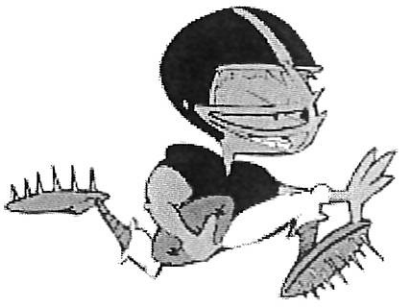
_____

5. Are multiples of 3 always odd? Explain.

_____

_____

The football player needs to get past the defense. Draw the path starting at 5 and counting by 5s up to 500.

315	320	355	360	365	490	495			
310	325	350	345	370	485	500			
305	330	335	340	375	480				
300	295	390	385	380	475	470	465	460	455
285	290	395	400	405	410	415	430	435	450
280	275	270	265	200	195	420	425	440	445
245	250	255	260	205	190	185	180	175	170
240	225	220	215	210	95	100	105	160	165
235	230		30	35	90	85	110	155	150
			25	40	45	80	115	120	145
			20	15	50	75	70	125	140
			5	10	55	60	65	130	135

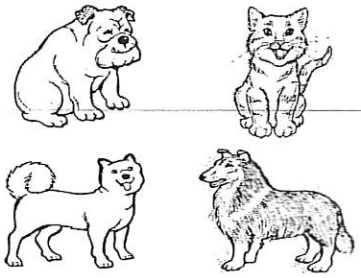
Name: _____

Ratio

Ratios are pairs of numbers that are used to compare two quantities.

Ratios can be written three ways - <u>with the word *to*</u>, <u>with a colon</u>, or <u>as a fraction</u>.

example: What is the ratio of dogs to cats?



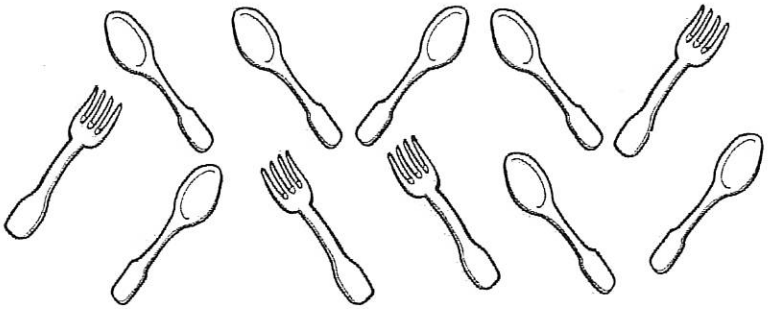
3 to 1

3:1

$\frac{3}{1}$

Write each ratio three ways.

1. What is the ratio of spoons to forks?

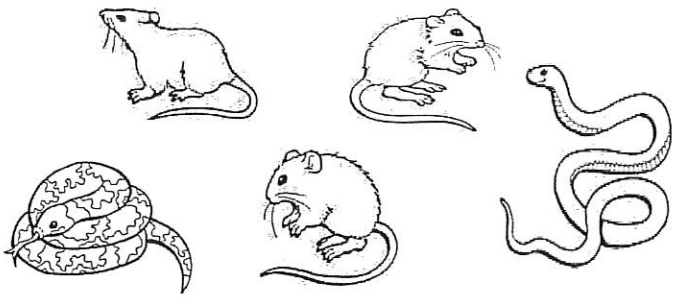


_____

_____

_____

2. What is the ratio of snakes to mice?

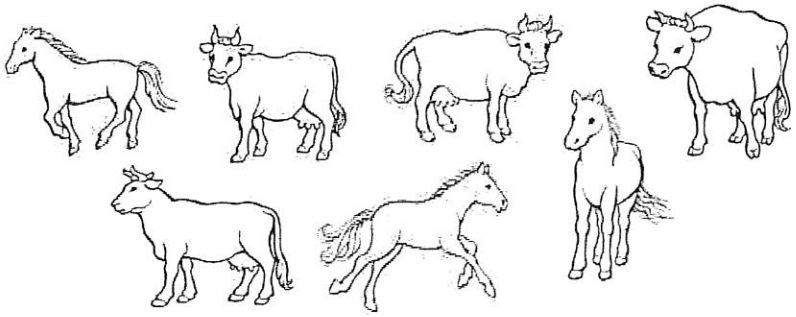


_____

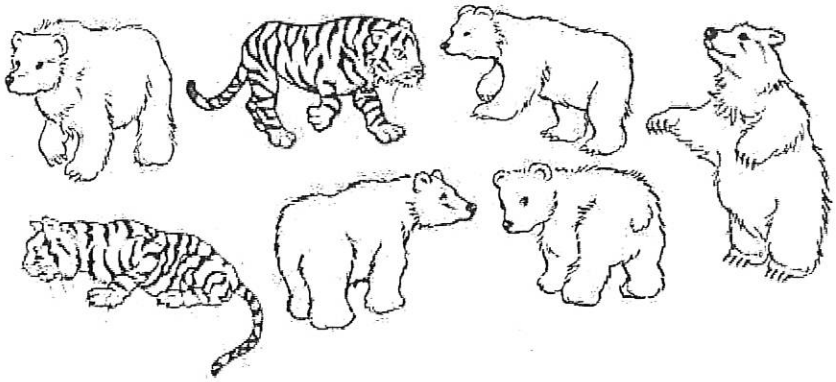
_____

_____

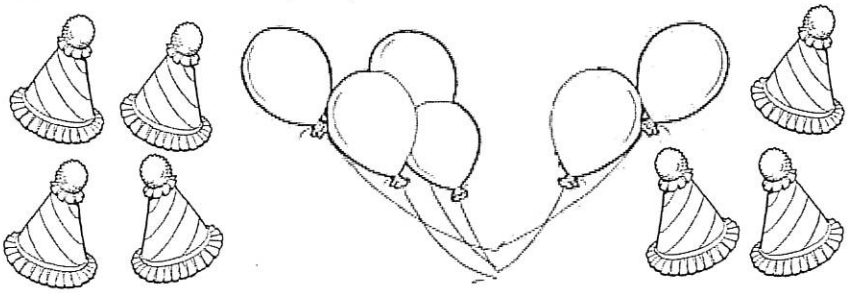
3. What is the ratio of cows to horses?



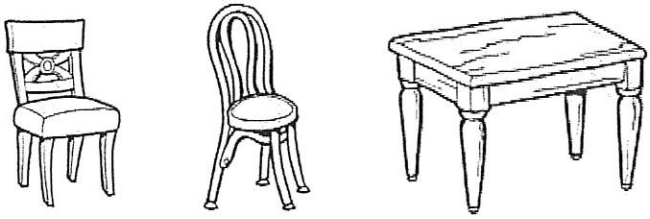
4. What is the ratio of tigers to bears?



5. What is the ratio of party hats to balloons?



6. What is the ratio of tables to chairs?



Name: _____

Multiplying Fractions

Step 1: Multiply the numerators. $\frac{3}{5} \times \frac{2}{3} = \frac{6}{\quad}$

Step 2: Multiply the denominators. $\frac{3}{5} \times \frac{2}{3} = \frac{6}{15}$

Step 3: Simplify your answer if possible. $\frac{3}{5} \times \frac{2}{3} = \frac{6}{15} = \frac{2}{5}$

a. $\frac{7}{8} \times \frac{4}{9}$

b. $\frac{4}{5} \times \frac{1}{4}$

c. $\frac{2}{9} \times \frac{1}{7}$

d. $5 \times \frac{7}{8}$

e. $\frac{2}{3} \times \frac{5}{8}$

f. $\frac{3}{4} \times 8$

g. $\frac{2}{3} \times 9$

h. $\frac{3}{7} \times \frac{5}{9}$

i. $\frac{9}{10} \times \frac{5}{18}$

j. $\frac{2}{3} \times \frac{6}{7} \times \frac{3}{5}$

k. $7 \times \frac{2}{3} \times \frac{3}{4}$

Name: _____

Decimal Multiplication

Rewrite each problem vertically and solve.

a. 3.7 x 0.4 = _____	**b.** 18.7 x 6 = _____	**c.** 81.9 x 0.5 = _____
d. 9.9 x 0.8 = _____	**e.** 7.12 x 3 = _____	**f.** 10.3 x 2 = _____
g. 7.11 x 9 = _____	**h.** 82 x 0.3 = _____	**i.** 4.2 x 0.7 = _____
j. 15.9 x 0.8 = _____	**k.** 5.55 x 5 = _____	**l.** 88 x 0.8 = _____

Name: _____

Simplifying Fractions

To simplify a fraction, divide the numerator and the denominator by the greatest common factor.

example: Simplify the fraction $\frac{18}{27}$

The greatest common factor of 18 and 27 is 9.

Divide the numerator and the denominator by 9.

$$\frac{18}{27} \div \frac{9}{9} = \frac{2}{3}$$

Simplify each fraction.

a. $\frac{4}{20}$ = **b.** $\frac{5}{10}$ = **c.** $\frac{14}{21}$ = **d.** $\frac{9}{15}$ =

e. $\frac{16}{24}$ = **f.** $\frac{18}{48}$ = **g.** $\frac{16}{44}$ = **h.** $\frac{9}{21}$ =

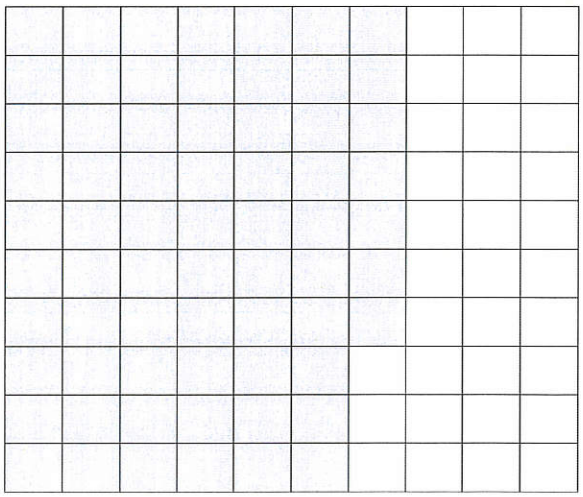
i. $\frac{25}{30}$ = **j.** $\frac{8}{22}$ = **k.** $\frac{12}{30}$ = **l.** $\frac{5}{20}$ =

q. There are 36 students in Frank's class. 27 of them are buying lunch today. Write and simplify the fraction of students that are buying lunch.

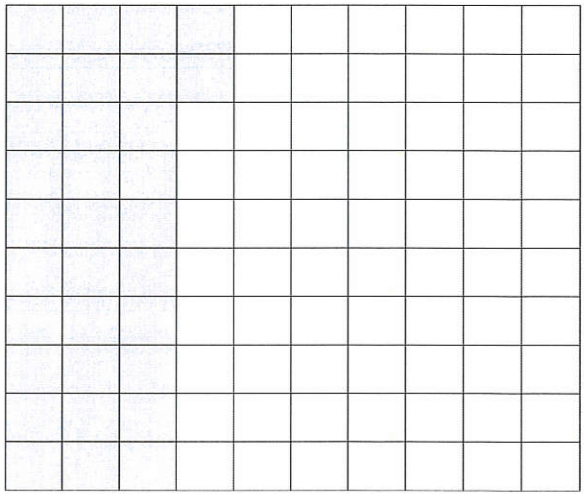
Name: _____

Decimals: Hundredths

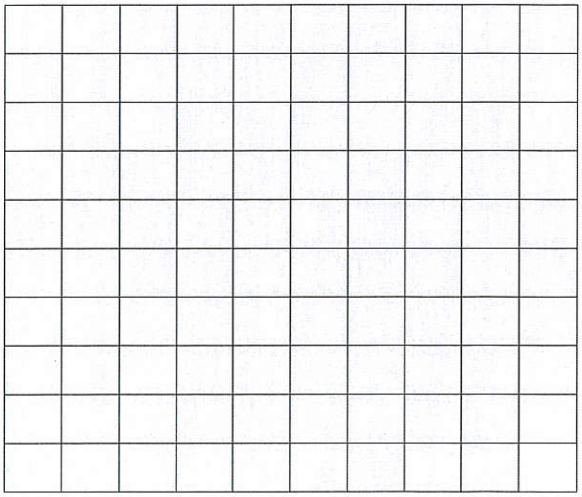
Write a decimal and fraction to tell what part of each hundreds grid is shaded.



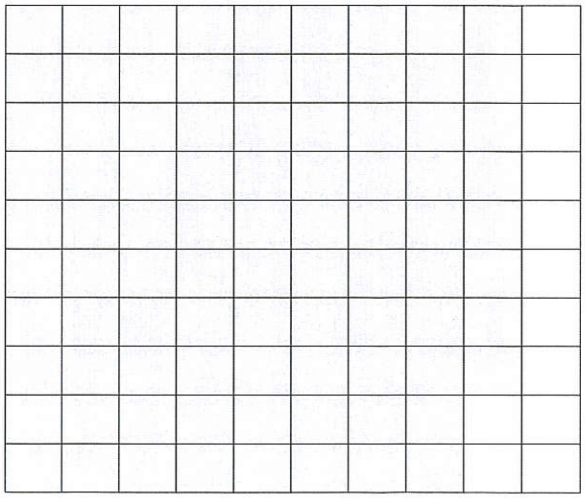
1. fraction: decimal:



2. fraction: decimal:



3. fraction: decimal:



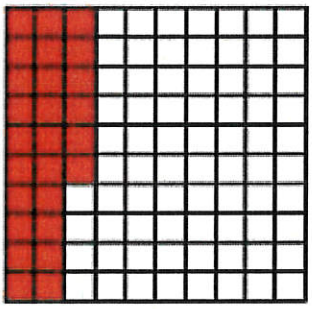
4. fraction: decimal:

Name: _____

Decimals: Hundredths and Tenths

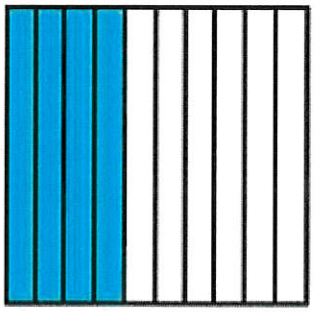
Write the decimal and the fraction of each shaded part.

a.



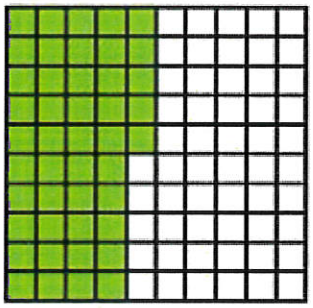
_____

b.



_____

c.

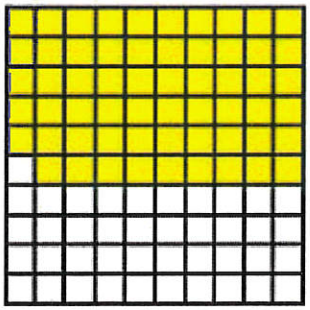


_____

d.

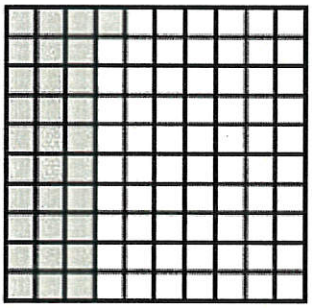
_____

e.



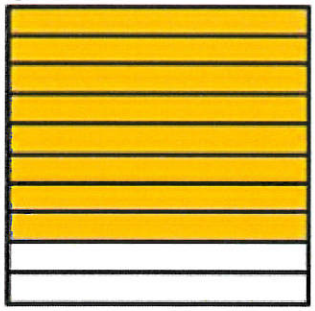
_____

f.



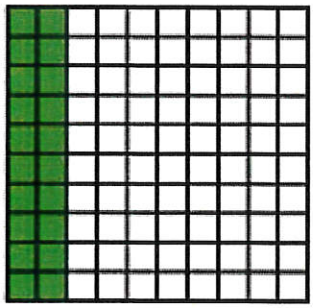
_____

g.



_____

h.



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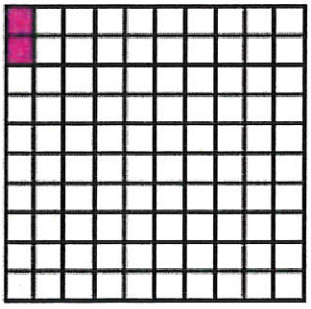
i.



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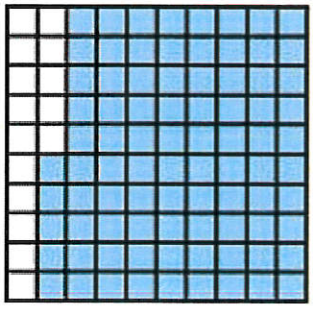
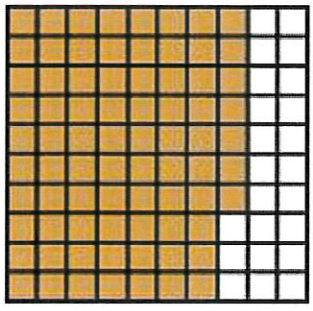
j.



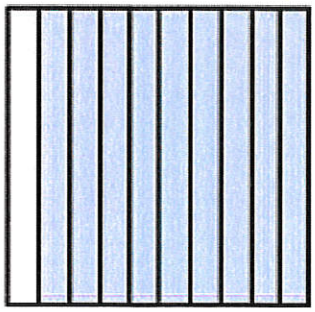
_____

k.



_____

l.



_____

Name:_____

Percents, Decimals, and Fractions

Cut out the fraction and decimal tiles at the bottom of the page. Glue them into the box next to the correct percent value.

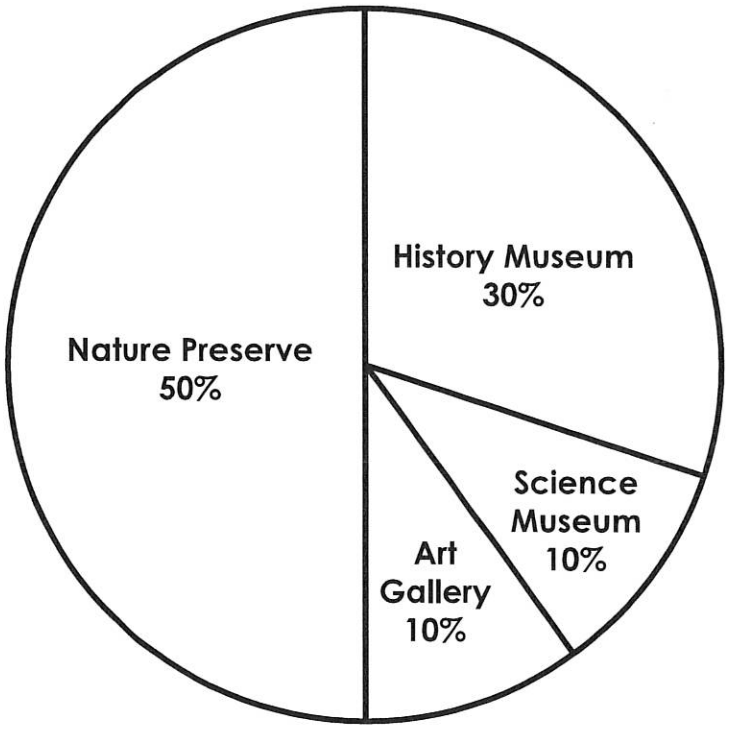
6%		56%		8%	
60%		10%		80%	
40%		1%		88%	
4%		75%		9%	

$\frac{1}{100}$	0.08	$\frac{4}{10}$	0.6	$\frac{88}{100}$	0.75
$\frac{56}{100}$	$\frac{4}{100}$	0.8	$\frac{10}{100}$	0.06	$\frac{9}{100}$

Name: _____

Pie Graph

Mr. Sobieski asked his class to vote on where they would most like to go on a field trip. The choices he gave them were: history museum, science museum, art gallery, and nature preserve. All 30 students cast one vote each. The pie graph below shows the results.



Complete the table below to show how many votes each choice received.

Destination	Number of Votes
History Museum	
Science Museum	
Art Gallery	
Nature Preserve	

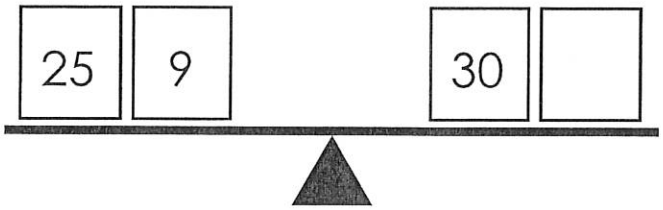
1. How many more students chose the history museum than the science museum? **1.** _____

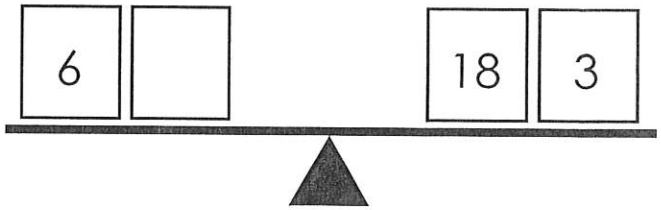
2. How many students chose the nature preserve or the art gallery? **2.** _____

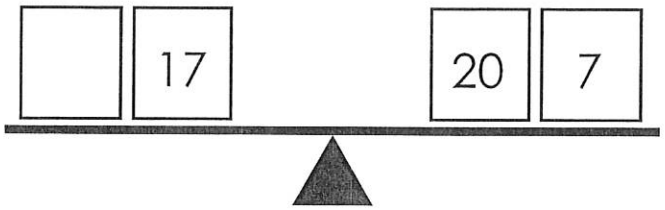
Name: _____

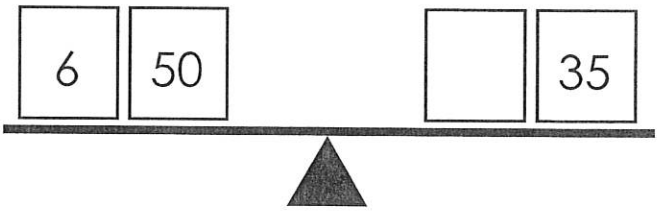
Balance the Scales

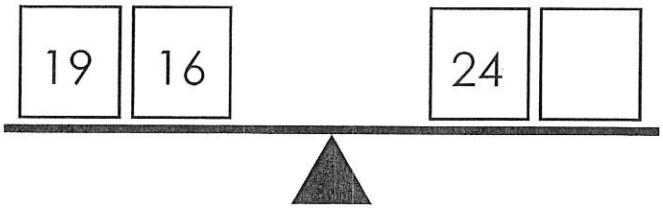
Make the scales balance by using addition and subtraction to find in the missing numbers.

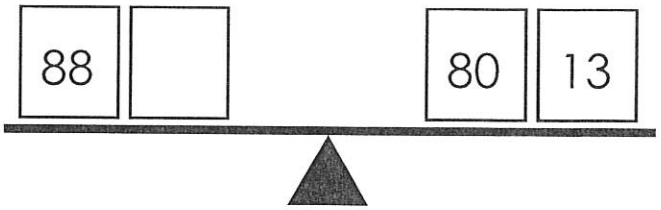
a. 

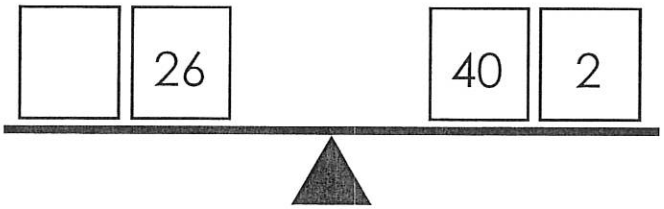
b. 

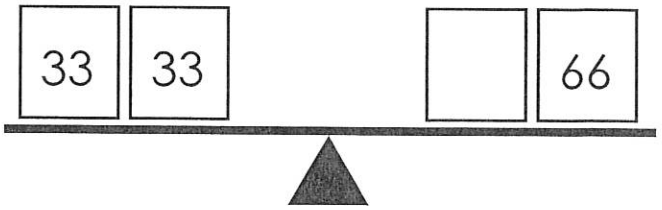
c. 

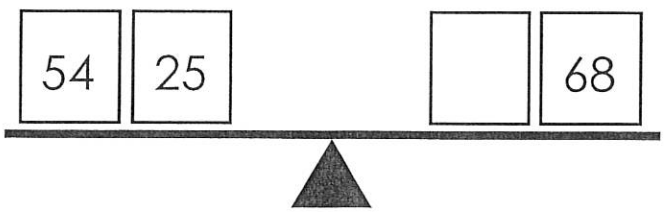
d. 

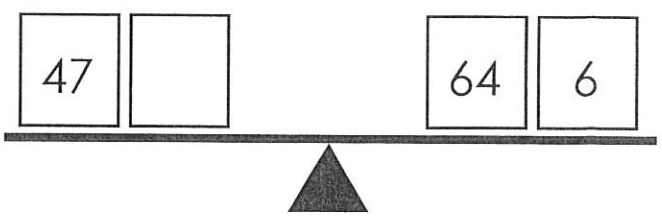
e. 

f. 

g. 

h. 

i. 

j. 

Name: _____ Single Variable

Introduction to Inequalities

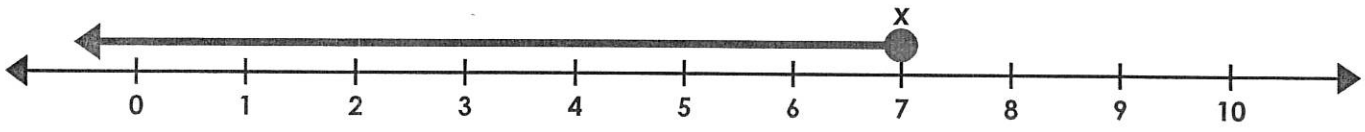
An inequality is a pair of expressions or numbers that are not equal.

You can use these signs to express an inequality:

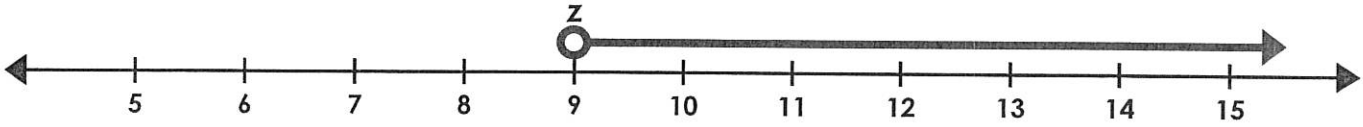
$>$	***greater than***	$\geq$	***greater than or equal to***
$<$	***less than***	$\leq$	***less than or equal to***

When you solve an inequality, you need to show all of the values that make the statement true. One way to do this is by graphing the inequality on a number line.

examples: **$x \leq 7$** (x is less than or equal to 7)



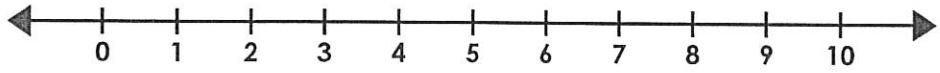
$9 < z$ (9 is less than z)



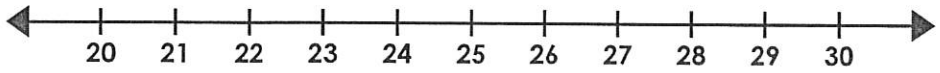
On an inequality graph, an **open circle** is used for ***greater than*** and ***less than***. A **filled circle** is used for ***greater than or equal to*** and ***less than or equal to***.

Write each inequality in words. Then graph each on the number line using a red colored pencil or crayon.

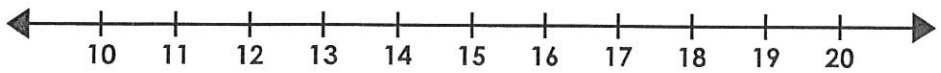
1. $a \geq 3$ word form: _____



2. $25 > q$ word form: _____



3. $t \leq 17$ word form: _____



Name: _____

Averages

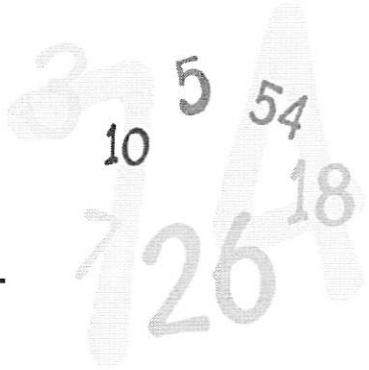
Here's how you can find the average, or mean, of a set of numbers.

Step 1: Find the sum of the numbers.
Step 2: Divide the sum by the number of addends.
The quotient is the average, or mean.

Find the average of these numbers: 12, 9, 9, 8, 12

Step 1: 12 + 9 + 9 + 8 + 12 = *50*
Step 2: 50 ÷ 5 = *10*

The average of the numbers is 10.



Find the average for each set of numbers.
Show your work and write your answer on the line.

a. 13, 13, 13, 17 avg: _____

b. 15, 20, 25, 30, 35 avg: _____

c. 10, 6, 6, 9, 13, 3, 2 avg: _____

d. $15, $11, $9, $13 avg: _____

Name: _____

Averages: Word Problems

Clayton plays basketball on a team. He has played three games so far. In the first game, he scored 10 points. In the second game, he scored 14 points. In the third game, he scored 6 points. What is Clayton's average points per game?

answer: _____

Mandy earns money by delivering groceries. She earned $4 on Monday, $7 on Tuesday, $5 on Wednesday, $4 on Thursday, and $5 on Friday. What is the average amount of money Mandy earned per day?

answer: _____

Jean loves to go bird watching. One day, she saw 7 birds. The next day, she saw 11 birds. The next day, she saw no birds. What is the average number of birds Jean saw each day?

answer: _____

Harley read 5 books in January, 8 books in February, 4 books in March, and 7 books in April. What is the average number of books Harley read per month?

answer: _____

ame: _____ Skill: Mode

Mode

When you look at a set a numbers, the mode is the number that appears the most. If a number does not appear more than once, there is no mode.

Find the mode of these numbers: 34, 33, 34, 34, 35, 36, 33, 34, 31

The number 33 is listed twice. The number 34 is listed four times. All other numbers appear only once.

The mode is 34.

Find the mode for each set of numbers. If there is no mode, write the word "none."

a. 21, 21, 22, 22, 22, 23, 23, 23, 23, 24

mode: _____

b. 100, 100, 100, 93, 88, 88, 87, 88, 87, 88, 85

mode: _____

c. 4, 1, 2, 3, 2, 4, 5, 6, 7, 8, 9, 2

mode: _____

d. 256, 256, 64, 128, 128, 64, 32, 512, 128, 32

mode: _____

e. 321, 213, 123, 231, 312, 132

mode: _____

f. 6, 3, 8, 6, 6, 5, 8, 3

mode: _____

g. 300, 400, 700, 400, 600, 100, 800, 200, 900

mode: _____

h. 765, 657, 567, 756, 755, 675

mode: _____

i. 467, 455, 467, 455, 467, 455, 467, 455, 467

mode: _____

j. 1, 0, 0, 0, 1, 1, 0, 1, 1, 1, 0, 1, 0, 1, 0, 1, 1, 0, 0, 1

mode: _____

k. 99, 98, 96, 99, 98, 99, 95, 96

mode: _____

l. 834, 438, 843, 483, 348, 384

mode: _____

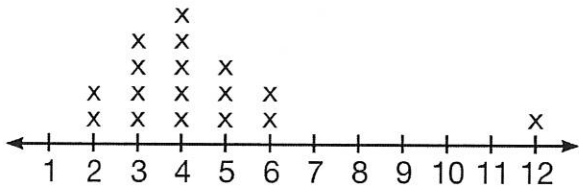
Name _____

Reteaching
14-1

Line Plots

The table below gives the number of miles Freda ran over a period of days. A line plot shows data along a number line. Each *X* represents one number in the data set.

Miles Run	Days
2	2
3	4
4	5
5	3
6	2
12	1



How Far Freda Runs (miles)

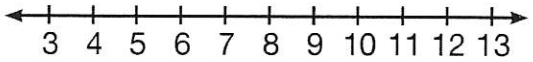
On the line plot, each *X* represents 1 day. An outlier is a number in a data set that is very different from the rest of the numbers.

1. Is there an outlier in the data set above? Explain.

_____

2. Complete the line plot to show the data in the table for puppies' weights at birth. Identify the outlier in the data set.

_____



Weights of Puppies (lb)

Weight (lb)	Number of Puppies
3	5
4	3
5	2
6	0
7	1
13	1

Name _____

Practice
14-2

Data from Surveys

Ms. Chen's class took a survey on how many minutes it took each student to get to school. The results are below:

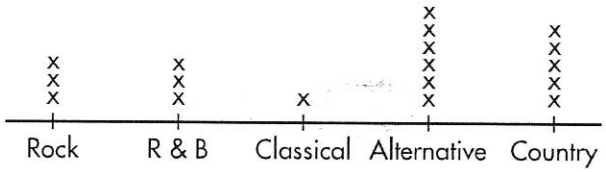
12 14 5 22 18 12 12 6 14 18 12 5 11

1. What are the highest and lowest times? _____

2. Make a line plot to display the data.

Students in Ms. Chen's Class

Music Bought in Class B



CDs Bought

3. If the entire class responded to the survey, how many students are in the class? _____

4. What information was collected about music? _____

_____

5. Use the line plot above. Which type of CDs did students buy most often?

A Alternative **B** Classical **C** Country **D** Rock

6. Write a survey question that might gather the following information. "In one school there are 6 sets of twins, 2 sets of triplets, and one set of quadruplets."

_____

_____

Name _____

Reteaching
14-3

Making Line Plots

Joshua surveyed his classmates to collect data on their shoe sizes. He found the following information.

$7\frac{1}{2}$	7	$5\frac{1}{2}$	$6\frac{1}{2}$
$8\frac{1}{2}$	6	$7\frac{1}{2}$	$5\frac{1}{2}$
6	$7\frac{1}{2}$	$5\frac{1}{2}$	6
$6\frac{1}{2}$	6	8	6
$7\frac{1}{2}$	$7\frac{1}{2}$	8	$7\frac{1}{2}$

When you want to organize the data into a line plot, first organize the data. List the shoe sizes from greatest to least. Fill in the missing data below.

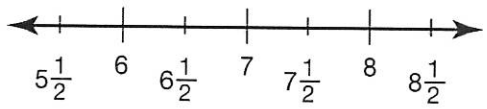
$5\frac{1}{2}$, 6, _____, 7, _____, _____, _____

Then make a table to show the frequency of the values.

Shoe Size	Tally	Frequency
$5\frac{1}{2}$		
6		
7		

Now draw a line plot.

Shoe Sizes



For questions **1–2,** draw a line plot.

1.

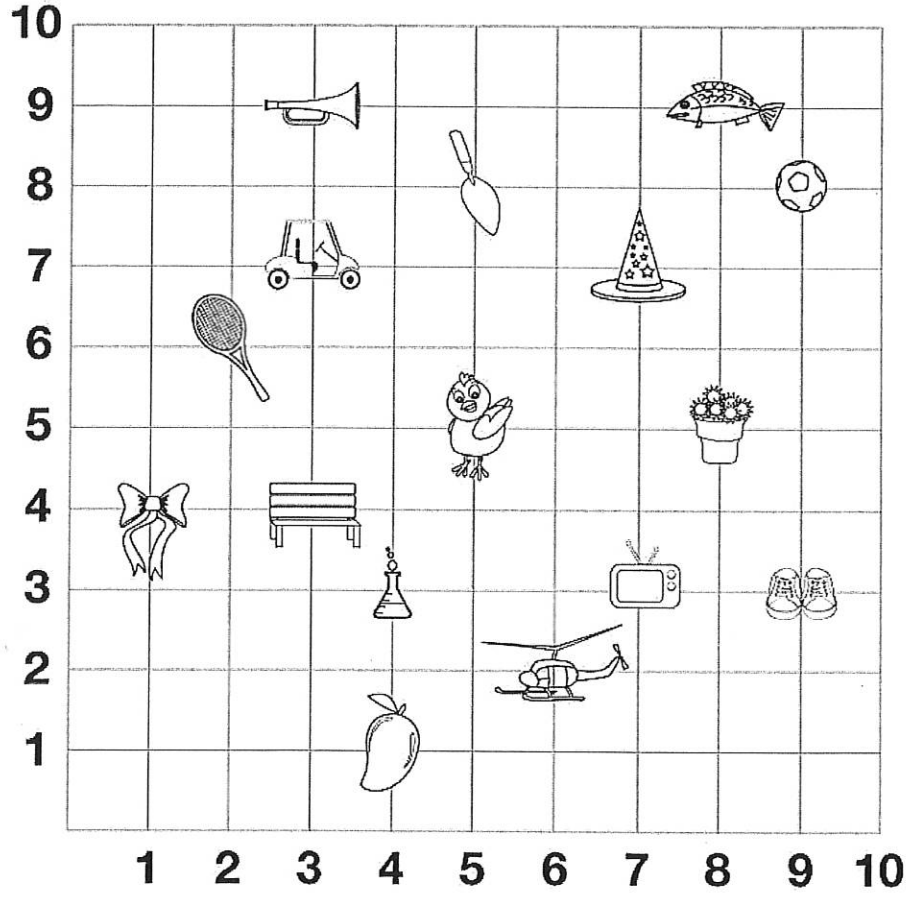
$13\frac{1}{2}$	13	$14\frac{1}{4}$	$13\frac{1}{2}$	13
$14\frac{1}{4}$	$14\frac{1}{2}$	$14\frac{1}{2}$	13	$14\frac{1}{2}$

2.

$2\frac{1}{2}$	5	$2\frac{3}{4}$	$4\frac{1}{4}$	5
$2\frac{3}{4}$	$4\frac{1}{2}$	$4\frac{1}{2}$	5	$4\frac{1}{2}$
$4\frac{1}{4}$	5	5	$4\frac{1}{4}$	$4\frac{1}{4}$
$4\frac{1}{4}$	$4\frac{1}{2}$	$4\frac{1}{2}$		

Name: _____ Coordinate Plane & Ordered Pairs

Ordered Pairs



Write the ordered pair for each of the objects listed.

example: television - (7,3)

a. helicopter - _____ **b.** shoes - _____ **c.** pepper - _____

d. wizard's hat - _____ **e.** fish - _____ **f.** golf cart - _____

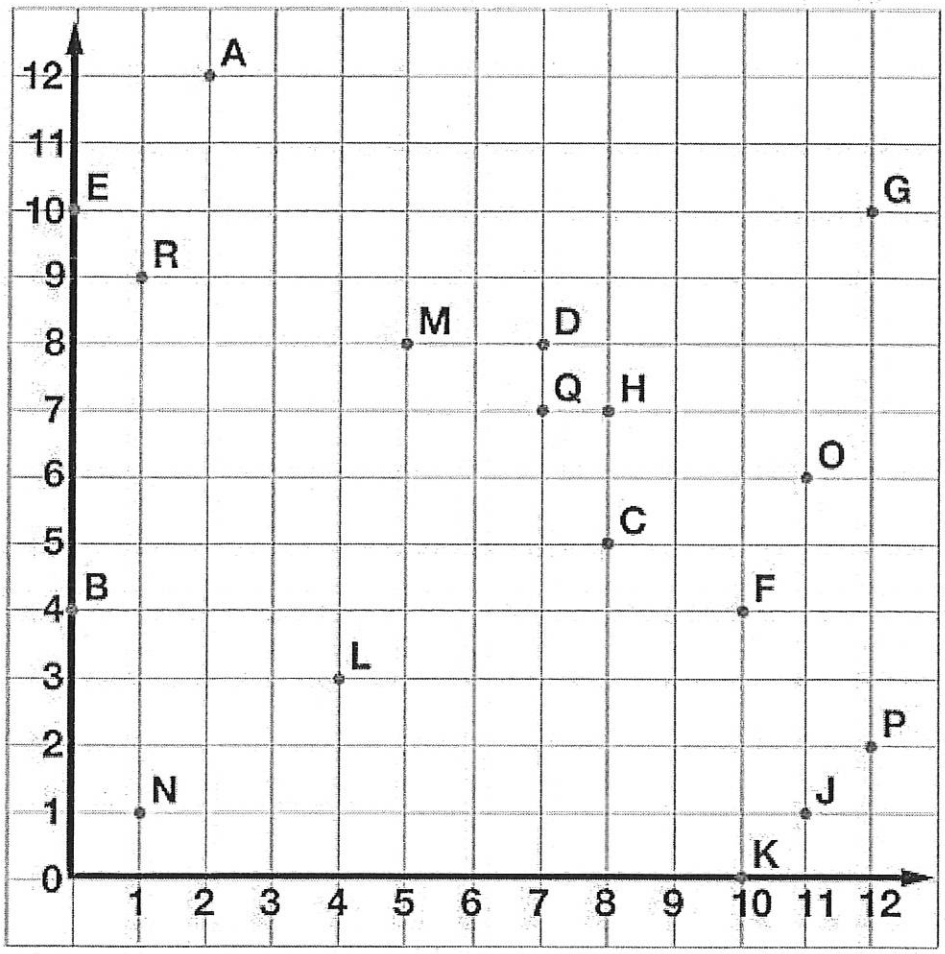
Tell which object is located at each point.

e. (3,4) - _____ **f.** (2,6) - _____ **g.** (1,4) - _____

h. (5,5) - _____ **i.** (9,8) - _____ **j.** (3,9) - _____

Name: _____

Ordered Pairs



Tell what point is located at each ordered pair.

1. **(5,8)** _____
2. **(12,2)** _____
3. **(8,7)** _____
4. **(12,10)** _____
5. **(7,7)** _____
6. **(0,10)** _____

Write the ordered pair for each given point.

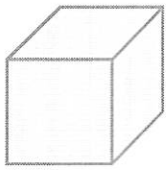
7. **N** _____
8. **L** _____
9. **J** _____
10. **A** _____
11. **B** _____
12. **E** _____

Plot the following points on the coordinate grid.

13. **S (6,11)**
14. **T (3,5)**
15. **U (9,12)**

Name: _____

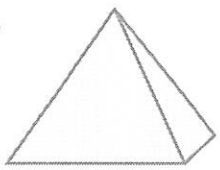
Solid Figures


Cube

Sphere


Cylinder


Cone

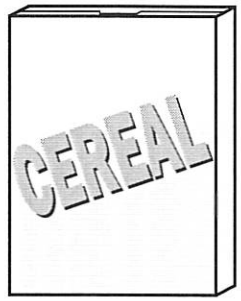

Pyramid


Rectangular Prism

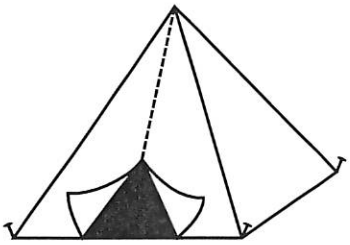
Write the name of the solid figure that each object looks like.

_____

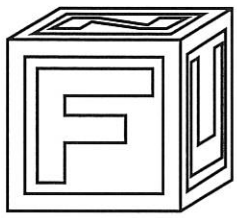
_____



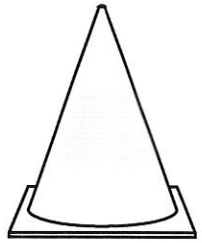
_____



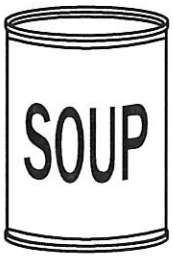
_____



_____



_____



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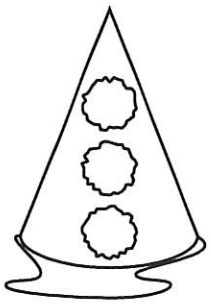
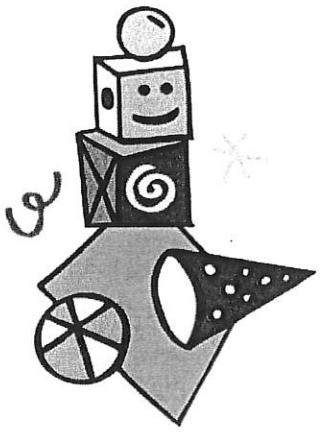


_____

_____

Name: _____

Solids



Word Box

cube	sphere	four
pyramid	solid	six
cylinder	vertex	eight
cone	faces	ten
rectangular prism	edge	twelve

Choose a word from the box to correctly answer each question.
Some words will be used more than once. Some words will not be used at all.

1. A box of cereal is shaped like which solid? _____
2. A can of soup is shaped like which solid? _____
3. An orange is shaped like which solid? _____
4. A glue stick is shaped like which solid? _____
5. Your math book is shaped like which solid? _____
6. A die is shaped like which solid? _____
7. What are the flat surfaces on a pyramid, cube, or rectangular prism called? _____
8. What is the name of the place on a solid where two faces meet? _____
9. What is the name of a corner on a solid where three or more edges meet? _____
10. How many faces does a rectangular prism have? _____
11. How many vertices does a rectangular prism have? _____
12. How many edges does a rectangular prism have? _____