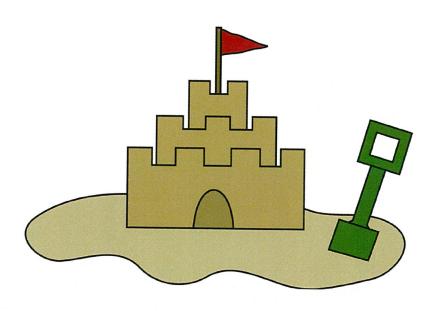
Name:

Summer Math Packet



Rising 4th Graders



Dear Rising Fourth Grade Families,

Happy summer! I hope summertime brings you an opportunity to relax and replenish!

The first five pages of this packet are a resource for students to use in completing the packet. It includes math vocabulary, fraction strips, a place value chart, etc.

The activities included in this packet align with the standards that were the focus of our third grade curriculum. It is designed to reinforce procedural, conceptual, and problem solving skills.

Please submit the completed packet to the 4th grade teachers during the first week of school. I wish you all continued success.

Remember, I believe in you!

Salutations,

Mrs. Greenhaus

<u>Customary Units Measurement Page</u>

Capacity

1 cup = 8 fluid ounces

1 pint = 2 cups

1 quart = 2 pints

1 gallon = 4 quarts











Length

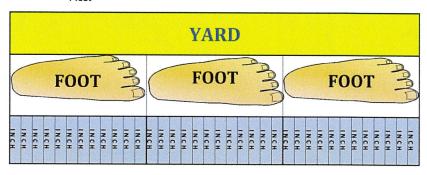
1 foot = 12 inches

1 yard = 3 feet

1 mile = 5,280 feet

1 mile = 1,760 yards

feet and inches 1 inch 1 2 3 4 5 6 7 8 9 10 11 1:



<u>Weight</u>

1 pound = 16 ounces 1 ton = 2,000 pounds



A soccer ball is about 1 pound.



A small car is about 1 ton.

<u>Time</u>

1 year = 52 weeks

1 year = 365 days

1 leap year = 366 days

1 year = 12 months

1 millennium = 1,000 years

1 decade = 10 years

1 century = 100 years

1 minute = 60 seconds

1 hour = 60 minutes

1 day = 24 hours

1 week = 7 days

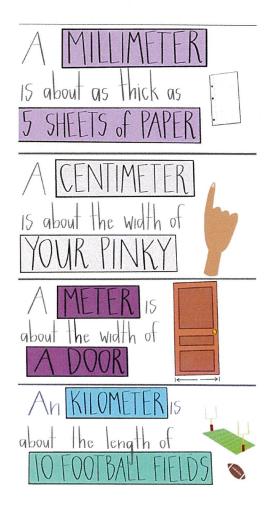
Metric Units Measurement Page

Length is measured in meters
Mass is measured in grams
Capacity is measured in liters

1 centimeter = 10 millimeters

1 meter = 100 centimeters

1 meter = 1,000 millimeters



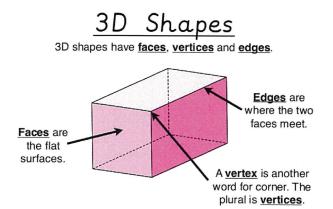
kilo-	hecto-	deca-	Base unit	deci-	centi-	milli-
kilometer	hectometer	decameter	meter	decimeter	centimeter	millimeter
					**	A
km	hm	dam	m	dm	em	mm
1000 m	100 m	10 m	1 m	10 dm in 1m	100 cm in 1 m	1000 mm in 1 m

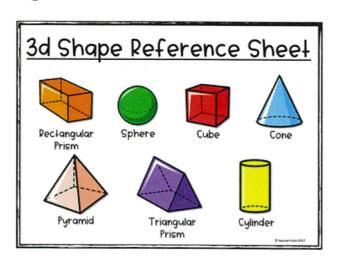
Geometry Page

Edges: a line segment where two faces meet

Face: any flat surface of a figure

Vertex: a corner of a figure





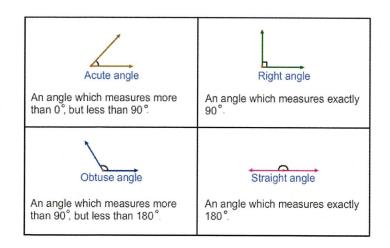
Perimeter vs. Area

Perimeter: the sum of all the side lengths of a figure; the distance around a figure **Area:** the number of unit squares needed to cover a region

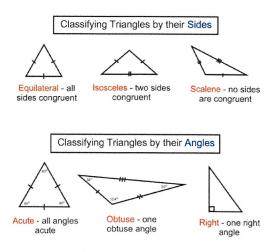


Area of a rectangle A = length x width

Types of Angles



Types of Triangles



Terms

Sum: the answer to an addition problem

Difference: the answer to a subtraction problem **Product:** the answer to a multiplication problem

Quotient: answer to a division problem

> means "greater than"

< means "less than"

Boiling point of water: 212 degrees Fahrenheit or 100 degrees Celsius **Freezing point of water:** 32 degrees Fahrenheit or 0 degrees Celsius

Place value chart

	Hundred Millions	Ten Millions	Millions 1,000,000	Hundred Thousands	Ten Thousands	Thousands 1000	Hundreds	Tens	Ones 1	Decimal	Tenths 0.1	Hundredths 0.01	Thousandths 0.001	Ten Thousandths	Hundred Thousandths	Millionths 0.000001
A.							3	0	7		8	1				
В.									0		0	7				
C.									0		9					
D.							a a		5		8	0	4			
E.									0	•	2	6				2 11

Examples:

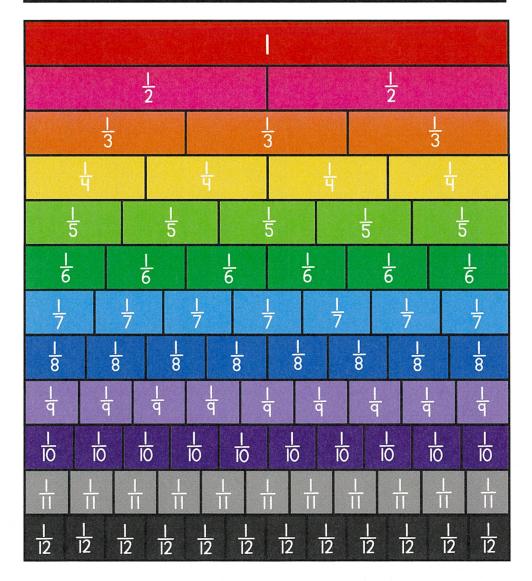
- A. Three hundred seven AND eighty-one hundredths
- B. Seven hundredths
- C. Nine tenths
- D. Five AND eight hundred four thousandths
- E. Twenty-six hundredths

NUMERATOR	PART
Secretary and the property of the secretary and	=
DENOMINATOR	WHOLE

7/10 is read as "seven tenths"

3/100 is read as "three hundredths"

Fraction Strips



MATTI SKILL NO SKILL

- Place Value

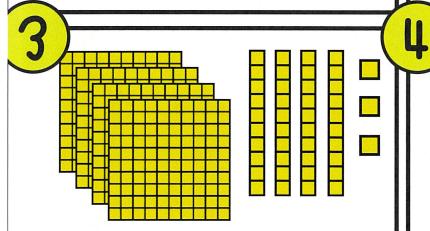
The population of Humble,
Texas was 37,291 in 2018. How do
you represent this number in the
following forms.

Ex	panded	Form
		. •

Word Form:

Expanded Notation:

Identify the **value** of the underlined digit in the following numbers.



What is the value of the base-10 blocks?

If 6 tens were added to the number above, what would be your new number?

Thomas is thinking of a number.
His number is composed of 5 ten
thousands, 7 hundreds, 3 tens, and 9
ones. Use the place value chart
below to determine Thomas' number.

НТ	TT	TH	Н	Т	О
		4.500			

MATH SKILL PRACTICE

Name:

- Compare and Order Numbers

Which of the following lists is in order from least to greatest?

- A. 54, 32, 23
- B. 78, 87, 86
- C. 36, 38, 37
- D. 89, 98, 99

Put the following numbers in order from least to greatest.

5,716 4,876 4,890 3,716

The table shows the population of 4 Texas cities.

Population of Texas Cities

City	2015 Estimated
	Population
Webster	68,602
Pearland	50,180
Humble	76,335
Spring	54,298

Which list shows the cities in order of population from least to greatest?

- A. Humble, Webster, Pearland, Spring
- B. Humble, Webster, Spring, Pearland
- C. Pearland, Spring, Humble, Webster
- D. Pearland, Spring, Webster, Humble

Compare the following numbers using >, <, =.

4

890 _____890

5,051_____5,540

22,875 ____ 22,857

- Addition Strategies

Addition on a Number Line!

Use the open number line to solve the problem below.

2

4

Addition With Regrouping!

3

Solve the problems below using expanded form!

Addition With Base-ten! Solve the problem below by **drawing** the <u>base-ten</u> strategy.

MATH SKILL NO PRACTICE

- Subtraction Strategies

Subtraction on a Number Line!
Use the open number line to solve
the problem below.

216-119

Subtraction With Regrouping!

653

- 199

424

-248

3 19

- 267

4

731

-379

Solve the problems below using expanded form!

Subtraction With Base-ten! Solve the problem below by **drawing** the <u>base-ten</u> strategy.

348-137

- Addition & Subtraction Word Problems

Landon scored 367 points on a computer game. Robert scored 296 points. How many more points did Landon score than Robert?

Landon

367 points

Robert 296 points

The zoo rescued 400 animals in January and 342 animals in February. How many animals were rescued in January and February combined?

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ASSESSED FOR	0.000 200 814	The state of the		general agentises and	everselens soughes

Answer:

Lindsey baked some cupcakes for her school bake sale. She sold 46 of the cupcakes and had 32 cupcakes left over. How many cupcakes did Lindsey bake?

Answer:

Chris wants to buy a remote-control car that costs \$150. He saved up a total of \$67. How much more money will Chris need to save in order to buy the toy car?

Answer:

Answer:

- Multi-Step Addition & Subtraction Word Problems —

Tyler spent \$ 173 dollars at the sports and outdoor store. Allen spent \$93 more dollars than Tyler. How much did the two boys spend altogether?

Mrs. Taylor is baking pies and cakes for her class party. She went to the Farmer's market, and she purchased the fruits that she needed. She bought 34 apples, 87 peaches, and 54 bananas. How many pieces of fruit did she buy at the market?

Answer_____

Steven picked 121 potatoes, 78 onions, and 14 cucumbers from his garden How many more potatoes did he pick than onions and cucumbers combined?

Town Elementary raised \$400 for their school fundraiser. Third grade raised \$121. Fourth grade raised \$99, and the rest of the money was raised by fifth grade. How much money did fifth grade raise?

Answer

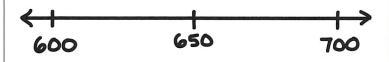
Answer_____

Answer_____

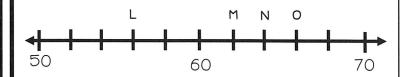
MATH SKILL NO SKILL N

- Estimate and Round-

Cody said 645 rounds to 700. Is he correct? Prove your answer using the number line below. Explain your answer.



Look at the number line below. When rounding to the nearest 10, which point does NOT round to 60?



- A. Point L
- B. Point M
- C. Point N
- D. Point O

Estimate to the nearest 100 and solve the following.

There are 128 lions and 275 tigers in the wildlife reserve. **About** how many more tigers than lions are in the wildlife reserve?

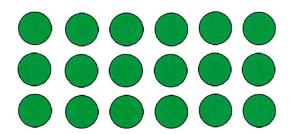
- A. 147
- B. 153
- C. 150
- D. 410

Answer:

Name:

- Multiplication Strategies

Ben is setting up a game by laying out an array of circle mats on the floor.



How many rows of circles are there?

4

How many circles are in each row?

Write a multiplication sentence below:

Write the multiplication equation for the number line below.



How many jumps are there?(a)

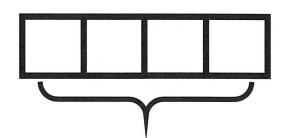
How many are in each jump?(b)



Complete the repeated addition sentence to find out the total value of the bills.

Write a matching multiplication fact.

Kendall bought 4 packages of gum. Each pack has 7 pieces of gum. Fill in the empty boxes on the strip diagram below to represent the situation.

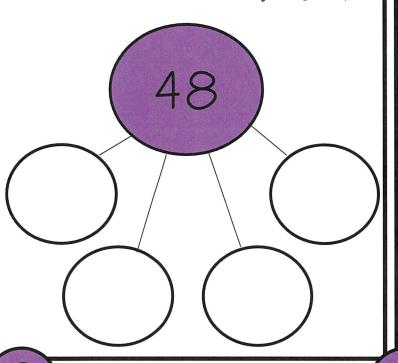


____ = Total number of pieces

MATH SKIL NO PRACTICE

- Division Strategies

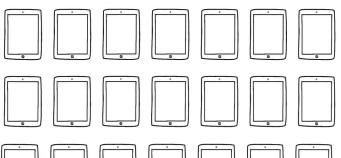
Use the **equal groups strategy** to divide 48 into 4 equal groups.



Use the **repeated subtraction strategy** to solve
40÷5.

40 ÷ 5= _____

The school is giving 3 IPads to each class. The picture below shows all of the IPads the school started with. How many classes received IPads?



Write an division equation for this problem:

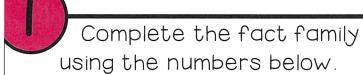
Use **related facts** to help you solve the problem below:

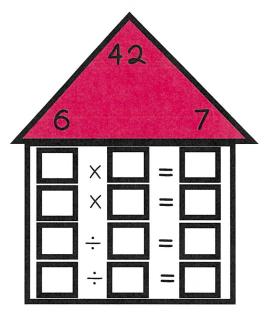
SWITCH IT!



MATH SKILL NO PRACTICE

- Multiplication and Division Fluency-





Complete the following multiplication facts.

$$3x3 =$$

4

$$9x3 =$$

Complete the following division facts.

Solve for the unknown.

$$48 = \boxed{\times 6}$$

$$9 = \div 7$$

MATH SKILL NO PRACTICE

- Multiplication and Division Word Problems-

Kendall is planting her flowers into rows. Each row has the same amount of flowers. One of the rows is shown below.



How many flowers are in 3 rows?

- A. 6
- B. 9
- C. 17
- D. Not here

The picture below shows the collection of crayons that Emma has.

She organizes her crayons into 5 containers. If she puts the same number of crayons in each container, how many crayons would she have in each container?

Answer: _____

Kai read an 81 page book in 9 days. He read the same number of pages each day. How many pages did Kai read each day? Maxwell is practicing his 14 spelling words of the week. He writes each spelling word seven times. Which of the following equations shows how to find the total number of words Maxwell wrote?

A.
$$14 - 7 = 7$$

C.
$$14 \div 7 = 2$$

D.
$$14 + 7 = 21$$

Answer:_____

- Multiplication and Division Multi-step Word Problems -

Nancy has started a small business walking dogs in her neighborhood. She earns 3 dollars for each dog that she walks. She walks 6 dogs each day. How much money will Nancy earn in 5 days?

Miles has a collection of 54 baseball cards. He wants to organize them in a book. He put the same number of cards on 6 pages. If he organized each page into 3 rows of baseball cards, how many cards would be in each row?

Answer:

Aiden bought 4 packages of hot dogs for the party. Each package had 8 hot dogs. There was enough for each kid to eat 2 hot dogs. How many kids ate hot dogs?

Answer:

Hannah has 3 boxes of pencils. Each box has 12 pencils in it. She gave 9 pencils to her brother. How many pencils does Hannah have left?

Answer:

Answer:

Name: _____

- Number Pairs and Relationship Tables-

John needs 9 pieces of wood for each birdhouse.

Number of Birdhouses	1	2	3	4
Pieces of Wood	9	18	27	Ş

How many pieces of wood would John need to build 4 birdhouses?

Karen created a savings plan to help her save money for a new toy. She plans on saving 6 dollars each week. How much money will Karen save in 9 weeks?

Number of Weeks	1	2	3	4	5	6
Amount Saved	6	12	18	24	30	36

Answer:

Lisa is serving pizza for her birthday party. She wants each of her guests to have 3 slices of pizza.

Number of Guests	1	2	3	4	5	6
Number of Slices	3	6	9	12	15	18

How many slices of pizzas should Lisa order to have enough for 9 people?

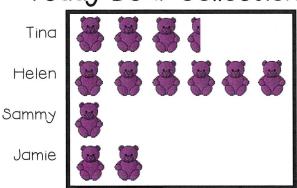
Lockhart Elementary is buying new cases of books for their school library. The relationship between the number of books purchased and the amount the school spent is shown in the table below.

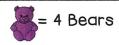
Number of Cases	Amount Spent
	\$24
2	\$48
3	\$72
7	?

If the school purchased 7 cases of books, how much money did they spend?

- Data Analysis and Solving Problems Using Graphs

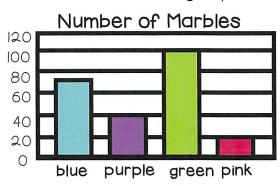
Teddy Bear Collection





I. How many more bears did Helen collect than Tina and Sammy combined?

Look at the bar graph below.



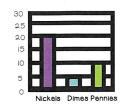
I. How many blue, green, and pink marbles are there?

2. How many fewer pink marbles are there than blue marbles?

Max collects coins. The tally chart shows the number of coins collected by Max. Drag the circle to cover the bar graph that best represents the data.

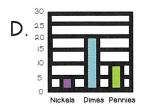


A. 30
25
10
Nickels Dimes Pennie



B. 30
25
20
15
10
Nickels Dimes Pennies

U



The ages of 22 students in a swim class are given below.

12, 6, 8, 11, 7, 7, 11, 9, 6, 8, 10 9, 7, 10, 11, 12, 8, 7, 9, 9, 10, 8

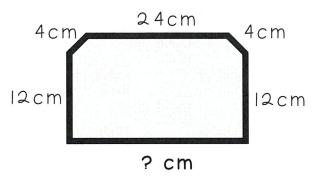
Complete the dot plot below using the data above.



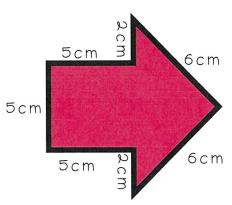
How many students are 8 years or younger?

- Solving for Perimeter

The perimeter of the figure below is 89 cm. Solve for the missing length of the figure.



Find the perimeter of the figure below

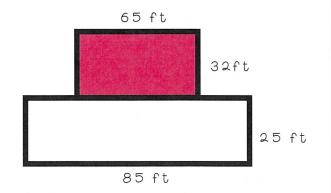


Answer:

Answer:

Mr. Brown is building a fence around his vegetable garden. If the **perimeter** of the garden is 60 feet, what is width of the missing side?

A fence is to be built around the shaded region of the rectangular field. How many feet of fencing will be needed?

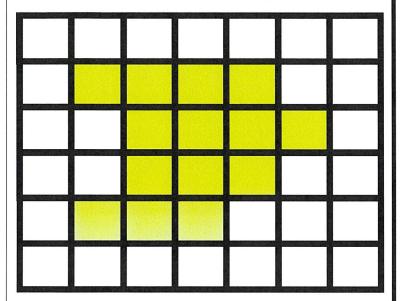


Missing Length:

Answer:

-Solving for the Area

What is the area of the figure below?

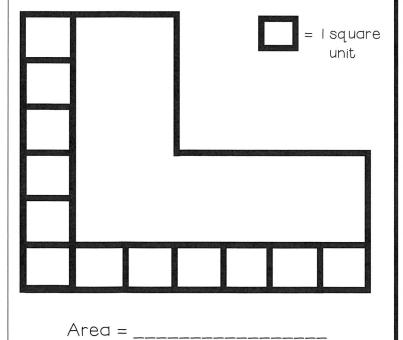


Tyler is counting the square tiles on the floor of his rectangular closet. The area of each tile is I square foot. The floor has 4 rows with 9 tiles in each row. What is the area of Tyler's closet? Draw a picture below to represent this problem.

Area: _____

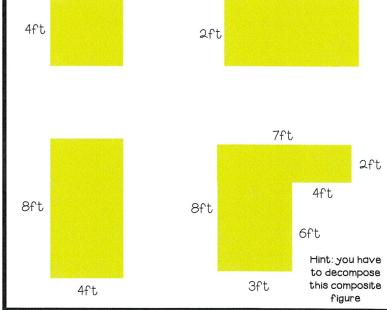
Answer: _____

What is the area of the figure below?



Draw a circle around all of the figures that have an area of 32 sq.ft.

16ft

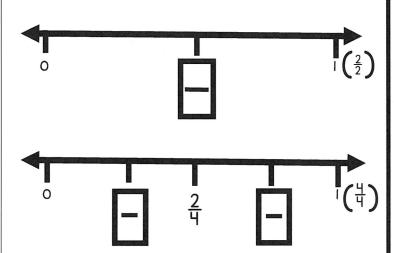


MATHSKIL

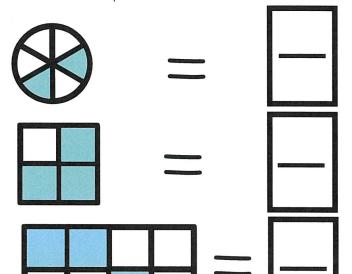
Name:

- Representing Fractions-

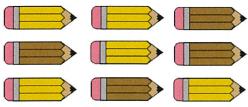
Label the missing fractions on the number line below. (Hint: How many equal parts are there on each number line?)



Name the fraction of the shaded region for each picture below.

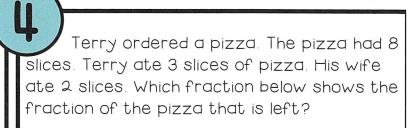


George has a collection of brown and yellow pencils. His pencil collection is shown below.



What fraction of the pencils are yellow?

What fraction of the pencils are brown?







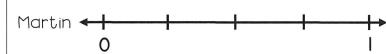




- Comparing Fractions

Kelly and Martin were competing in a race. After 30 minutes, they completed a different fraction of the race.

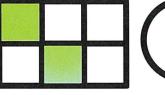
- Kelly completed $\frac{3}{8}$ of the race
- Martin completed $\frac{3}{4}$ of the race.



Who completed the greatest distance after 30 minutes?

The models below are shaded to represent two different fractions. Which symbol can be used to correctly compare these two models.

Which symbol (>,<, or =) would make this comparison true







Two number lines are shaded to model different fractions.



Which comparison is true?

a.
$$\frac{2}{4} = \frac{2}{3}$$

c.
$$\frac{2}{4} > \frac{2}{3}$$

b.
$$\frac{2}{4} < \frac{2}{3}$$

d.
$$\frac{2}{4} < \frac{1}{3}$$

Which symbol (>,<, or =) would make these comparisons true?

$\frac{3}{8}$	
8 8	
5 6	
$\frac{1}{2}$	

- Equivalent Fractions

lvan is playing a game where he must match equivalent fraction cards. The card shown below is the first card Ivan turned over. Which card does NOT match Ivan's card?

Ivan's Card











Which set of models below show equivalent fractions?





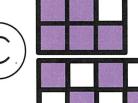
















Circle the model that is equivalent to one-half.

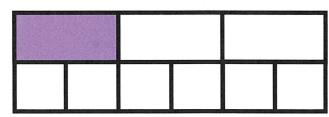








Shade in the rectangle that represents the equivalent fraction.



Name the equivalent fractions below.

$$\frac{1}{3} = -$$

- Fractions and Equal Shares

Three friends will equally share the 6 loaves of bread shown below.













What fraction of the bread will each friend get?









Norah is a cake decorator. She decorates 6 cupcakes.



She gives an equal number of cupcakes to 4 teachers. What fraction of the cupcakes does each teacher receive?

Answer:	
---------	--

Eddie has eight playing cards.

















He divides the cards equally between himself and three friends. What fraction of the cards will Eddie keep?

Answer:				

4 There are 3 friends sharing 4 brownies equally with each other. What fraction of the brownies will each friend receive?

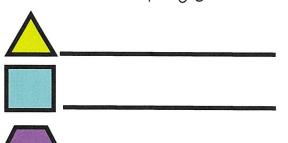


Each friend will receive _____

SKILL Name: _____

-Classifying 2D Shapes / Quadrilaterals

J	Name	each	polygon	below.
	A			







Use the word box and clues to fill in the blanks.

Trapezoid Hexagon Octagon

Rectangle Rhombus Triangle

- I. I am a quadrilateral with only one pair of parallel lines. Which polygon am I?
- 2. I am a quadrilateral with 4 equal sides and 4 right angles. Which Polygon am I?

Classify quadrilaterals by figuring out whether each statement is true or false.

Draw a circle around the T (true) or the F(false).

All trapezoids are quadrilaterals.

All squares are parallelograms. +,

Trapezoids have two pairs of parallel lines.

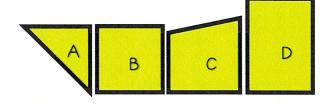
t f

f

All quadrilaterals are parallelograms.

t f

Read each statement about attributes of a polygon. Type the letter that matches the statement.



I. I have 4 right angles. All of my sides are not equal. Which letter am I?

2. I am a quadrilateral with 4 equal sides and 4 right angles. Which letter am I?

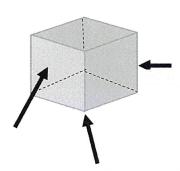
3. I have no pairs of parallel lines. I have one right angle. Which letter am I?

4. I am a quadrilateral. I have one set of parallel lines. Which letter am I?

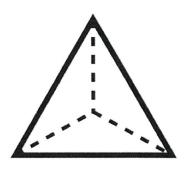
- Classifying 3D Shapes

Write the word bank to describe what the arrow is pointing to.

Edges Vertex Faces



Which shows the correct number of edges and faces for the figure below?



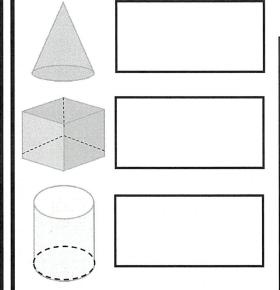
- a. 4 edges and 4 faces
- b. 3 edges and 3 faces
- c. 6 edges and 3 faces
- d. 6 edges and 4 faces

FIGURE A FIGURE B

Which statement is **true** about the figures above?

- a. Figure A is rectangular prism and figure B is a triangular prism.
- b. Figure A has 6 faces and figure B is 8 edges.
- c. Figure A and figure B have triangular faces.
- d. Figure A has 5 vertices and figure B has 8 vertices.

Use the word bank on the side to match the shape with its correct name. Some of the words will not be used.



WORD BANK

-Cube

-Triangular

Prism

-Cone

-Sphere

-Cylinder

-Rectangular

Prism

MATTI SKILL NO PRACTICE

- Measurement- Customary and Metric

Circle the answer choice that would most likely be measured in cups.



- A. Swimming Pool
 - B. Bathtub
 - C. Coffee
 - D. Rain Drop

Carry has a new teddy bear. She wants to measure her teddy bear. Which of the following is not a way that she can measure her teddy bear?

- A. She can use a scale to find the weight
- B. She can use a ruler to measure the length
- C. She can measure the capacity using cups or gallons
- D. She can measure the weight in pounds or ounces

4

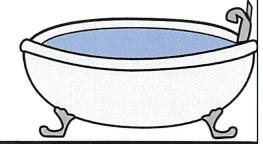
Which container has more than
I liter of liquid volume when it is
Filled to capacity?

A. a cup of coffee

- B. A small bottle of hand sanitizer
 - C. a can of soda
 - D. a swimming pool

Mr. Thomas wants to fill up his bathtub with water. About how much water will he need?

- A. 10 ounces
 - B. 10 mL
 - C. 10 cups
- D. 10 gallons



MATTI SKILL NO PRACTICE

- Measurement of Time

Shelly arrived to her dance class at the time shown on the clock below. The dance class ended at 4:30 p.m. How much time did Shelly spend in dance class?



Start Time



Finish Time

The clocks below shows what time Kelly started grocery shopping and what time she finished. How long did Kelly spend grocery shopping?

Answer:

Ryan's basketball practice began at 3:15 p.m. After the players warmed up for 15 minutes, did basketball drills for 45 minutes, and stretched for 10 minutes, the practice ended. At what time did the basketball practice end?

Mark went to the park with his dog. They spent 30 minutes running around the trail, 10 minutes playing Frisbee, and 15 minutes playing with other dogs. They left the park at 6:25 p.m. What time did they arrive to the park?

End Time:

Answer:

Answer:

How did the frog feel when he broke his leg?



Solve the following problems and match your answers to the answers in the **Legend**. Then record the corresponding letter of the correct answer in the rectangles below to answer the riddle.

Note: The problem numbers match the numbered rectangles.



 $05 \times 3 = 15$

 $\bigcirc 2 \times 6 = 12$

 $\mathbf{P} 3 \times 3 = 9$

 $\mathbf{P} 3 \times 7 = 21$

 \bigcirc 4 x 4 = 16

Express each set in the problems below as a multiplication problem:









2









3







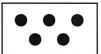




4







(5)













6



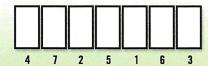




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Skill: Expressing multiplication

CCSS: 3.OA.A.1

What has a hundred heads and a hundred tails?



Solve the following problems and match your answers to the answers in the **Legend**. Then record the corresponding letter of the correct answer in the rectangles below to answer the riddle.

Note: The problem numbers match the numbered rectangles.



② 2 ③ 11 54

3 7

D 10

P 3

1 27

N 8



s in groups to answer the question:

1 How many groups of 5 can you make in the 20 shapes?



2 How many groups of 3 can you make in the 18 shapes?



(3) How many groups of 6 can you make in the 12 shapes?



4) How many groups of 3 can you make in the 21 shapes?



(5) How many groups of 9 can you make in the 27 shapes?



(6) How many groups of 2 can you make in the 18 shapes?



(7) How many groups of 4 can you make in the 20 shapes?



8 How many groups of 3 can you make in the 30 shapes?

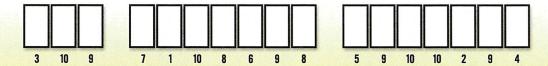


9 How many groups of 2 can you make in the 22 shapes?



(10) How many groups of 3 can you make in the 24 shapes?





Skill: Interpreting whole number division

CCSS: 3.OA.A.2

Why did the clown go to the doctor?



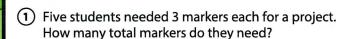
Solve the following problems and match your answers to the answers in the **Legend**. Then record the corresponding letter of the correct answer in the rectangles below to answer the riddle.

Note: The problem numbers match the numbered rectangles.

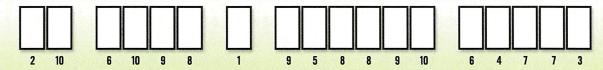
- **Q** 27 **D** 16
- ① 20 ③ 10
- **A** 15 **M** 25
- **Y** 18

- **Q** 14 **Q** 24
- **1** 72





- 2 4 dogs. How many paws did the veterinarian clip?
- 3 A painter painted three rooms in each of six houses. How many total rooms did the painter paint?
- 4 Josh has 5 monster stuffies that each have 4 eyes. How many total eyes do Josh's monsters have?
- (5) Ruby has 4 notebooks in 6 different colors each. How many total notebooks does Ruby have?
- 6 A teacher had each of her 6 students check out 5 books each from the library. How many books did the students check out in all?
- 7 Nine artists produced three art pieces each to put on display at an art show. How many pieces of art were featured at the art show?
- 8 Eight toddlers ate nine goldfish crackers each. What is the total amount of goldfish crackers that were eaten?
- Seven kids removed their shoes when they arrived at their karate class. How many pairs of shoes were removed in all?
- (10) Sara practiced piano for 2 hours every day for 5 days. How many hours did Sara practice in all?



Skill: Multiplying within 100, word problems

CCSS: 3.OA.A.3