

PREPARE YOUR STUDENTS FOR SUCCESS IN THIS 13 WEEK TEST PREP PACK!

• All 5 math strands per week

- Rigorous real world problemsAligned to SBAC and PARCC testing
- Many multi-step problems
- Conceptual and procedural
- · Answer key included

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6<sup>th</sup> Grade Daily SBAC/PARCC Math Problem-Special Notes

Hello! Thank you for purchasing my 6<sup>th</sup> Grade Daily SBAC/PARCC Math Problem product. The problems in this set follow a one-a-day format, but certainly could be assigned more per day depending on the time you want to dedicate to it each day. The packet will take 13 weeks to complete if you follow the one per day format. Each day of the week focuses on a 1 of the 5 Common Core math strands:

Monday- Geometry

Tuesday- The Number System Wednesday- Ratios & Proportional Relationships Thursday- Expressions & Equations Friday- Statistics & Probability

The problems mimic problems that students will see in the actual SBAC or PARCC test and vary in

- answering style:
  - multiple choice
  - more than one correct answer
  - justify
  - fill in the blank
- conceptual vs. procedural based
- level of difficulty

Some of the problems are multi-step problems, and will require more time to complete, while others students will be able to quickly answer- this mirrors what students will experience in the actual test as well. What I recommend is on the problems that all students answer easily, use the remaining time to review more difficult concepts from the week. These problems, while good practice for the kids, can also serve as a form of informal assessment to reveal areas to you that require further intervention and review before the test. You will find the complete answer key in a separate file.

Best of luck as you prepare for this year's SBAC/PARCC test!

Just a little reminder, when printing this product or any of the products I create, please choose the option "fit to page" before printing.



Date:

Name:

Directions: Each day you will be given one rigorous math problem. Make sure to show your work. Ask yourself the following questions when solving the problem:

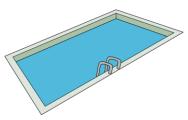
- What information does the problem give you? What information is missing?
- What is the problem asking you to do?
- · Will it take one step to solve, or is it a multiple-step problem?
- · Can you solve it with numbers, pictures, charts, etc? Can you solve it more than one way?
- Did you check your answer? Does your answer make sense?

The Martinez Family is planning to build a rectangular-shaped pool in their backyard. They want a pool that will measure 18 ft. long by 9 ft. wide.

In order to figure out how much yard will be left over in their backyard, Mr. Martinez has to calculate the surface area of the pool.

Which equation should be used to calculate what Mr. Martinez needs?

0	18	ft.	_	9	ft.
0	18	ft.	х	9	ft.
0	18	ft.	+	9	ft.
0	18	ft.	÷	9	ft.



Division:

87,836 ÷ 10,000

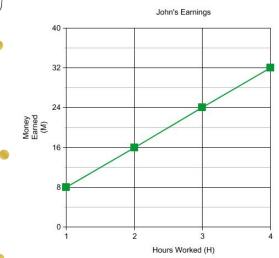
Enter the exact quotient - \_\_\_\_\_



A bakery baked 5 chocolate cupcakes and 8 salted caramel cupcakes for a birthday party.

- Write a ratio that compares the number of salted caramel cupcakes to the number of chocolate cupcakes.
- Describe in words what the ratio 13:8 means in terms of the number of cupcakes used for the birthday party.

John got a job umpiring little league games on weekends. The money (M) he earns is based on the number of hours (H) he umpires each weekend.

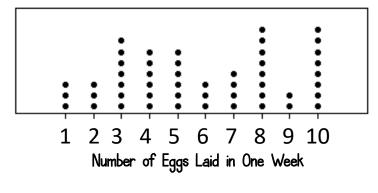


Based on the graph, answer the following:

- 1) How much does John make per hour?
- 1) How much will John make if he works 5 hours at the same rate?



Diane bought some hens to earn extra money selling eggs. She collects eggs every day from her hens. She plots how many eggs each hen laid in one week. The results are in the dot plot shown.



How many eggs total were laid in one week? \_\_\_\_\_



Date:

Name:

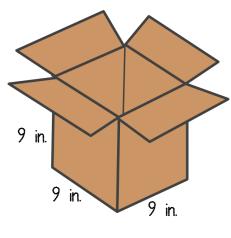
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Andres has found a box in the shape of a cube to store his collection of medals in. He has decided to paint the box.

Andres has calculated that he needs to paint 324 square inches. Which of the following must be true in order for Andres' calculation to be correct?

- Andres paints the entire interior of the box
- Andres paints all outside surfaces of the box
- Andres paints all the interior and exterior sides of the box.
- Andres paints the exterior of each side of the box except for the top and bottom.



On a horizontal number line, is -33 located to the left or right of -25. Justify your answer with a model and words and then write an inequality that represents this statement.

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Game Stop is offering a sale on used Nintendo 360 games. They have put together sale packs of 5 used games for \$44.75. What is the unit price of each game in the sale pack assuming they are of equal value?

Best Buy is also having a sale on used Nintendo 360 games. They are selling them individually. The unit price on each of their Nintendo used games is the same as the unit price in the Game Stop sale pack. How much would it cost for 3 used Nintendo 360 games at Best Buy?

In a classroom chick hatching project, y number of yellow chicks hatched alive. There were 5 times as many brown chicks as yellow chicks.

Write an equation that represents the total number of brown chicks b in the chick hatching project.

Matthew is doing a survey to find out more about the reading habits of his 6<sup>th</sup> grade class. Identify the type of questions Matthew is asking his classmates: as statistical or non-statistical.

\_\_\_\_ How many books did you read this month?

What is your reading level?

. What is your favorite genre?

How many pages can you read in an hour?



Date

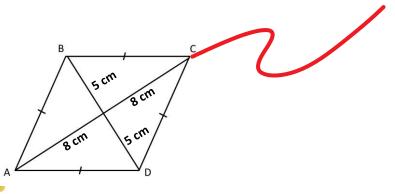
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Johnny is constructing his own kite. It needs to be a perfect parallelogram to fly properly. In the kite-shaped rhombus, consider the given measurements. Enter the total area of rhombus ABCD in square centimeters.



After your birthday party, you see that only onehalf of a pizza is left and it must be divided up equally between your six friends.



Write the equation and the fraction of the whole pizza that each person will receive if the entire half is split evenly.



Tristan is a cross country runner and can jog up to 14 miles in 2 hours. How many miles will Tristan jog in 7 hours at the same rate?



Daniel and Jason are very competitive and want to be right. Their teacher has asked them to write an expression that is equivalent to 4(2x + 5y).

Daniel writes the expression 8x + 20y

Jason writes the expression 40xy

Who is correct and why?

• Daniel is correct because 4(2x) + 4(5y) = 8x + 20y• Daniel is correct because 4 + 2x + 4x 5y = 8x + 20y• Jason is correct because 4x 2x x 5y = 40xy• Jason is correct because 4(10xy) = 40xy

Aubrey's mom said she was watching too much television on weekends, so she decided to survey her classmates to collect date about the number of minutes they spent watching tv last weekend. The data she collected ranges from 30 minutes to 360 minutes.

Determine whether the statements below are true about Aubrey's survey data. Then select true or false for each statement.

Statement	True	False
The range of the data values is the difference between 360 and 30.		
The mean of the data values is more than 60.		
The mean of the data values is less than 240.		
The median of the data values is greater than 360.		



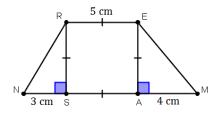
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Eli is constructing a tent in the shape of a trapezoid and wants to figure out his sleeping space.



Using the information shown, give the total area of trapezoid REMN in square centimeters.

Sylvia is having a BBQ with some of her friends. They decide to barbecue hot dogs. When she goes to the store she realizes that the hot dogs are sold in packs of 10 but the hot dog buns come in packs of 8. She wants to purchase the right number of packs in order to have an equal amount of hot dog buns and hot dogs.

How many packs of each would she need to purchase?

How many hot dogs would she end up making?

The table below contains equivalent ratios between x and y.

Enter any missing values into the table:

×	у
2	12
4	24
6	
7	42
	54

Daniel does chores for 30 minutes after school. He stops to do his homework and then does x more minutes of chores before going to bed. Write an equation that represents the total number of minutes (y) that Daniels does chores.

#### Extra Rigor:

Rp

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Daniel reads for x minutes after school. His best friend, Jason, reads 20 more minutes than Daniel does. They do this every school day for a week. Write an equation that represents the total number of minutes (y) that both boys read each day after getting home on a regular 5-day school week.

David decided to see if it was true that a coin would land on heads more often than tails. He and 11 friends flipped a coin 15 times each. The results of their flips are shown in the list below:

9, 12, 4, 5, 7, 7, 6, 7, 4, 8, 8, 10 (Heads)

Enter the median value of the data: \_\_\_\_\_

Enter the **range** for the data: \_\_\_\_\_\_

Enter the mode for the data: \_\_\_\_\_





**NDA** 

Date

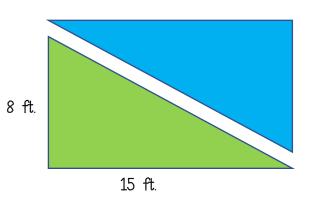
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Give the area of the green triangle in square feet:



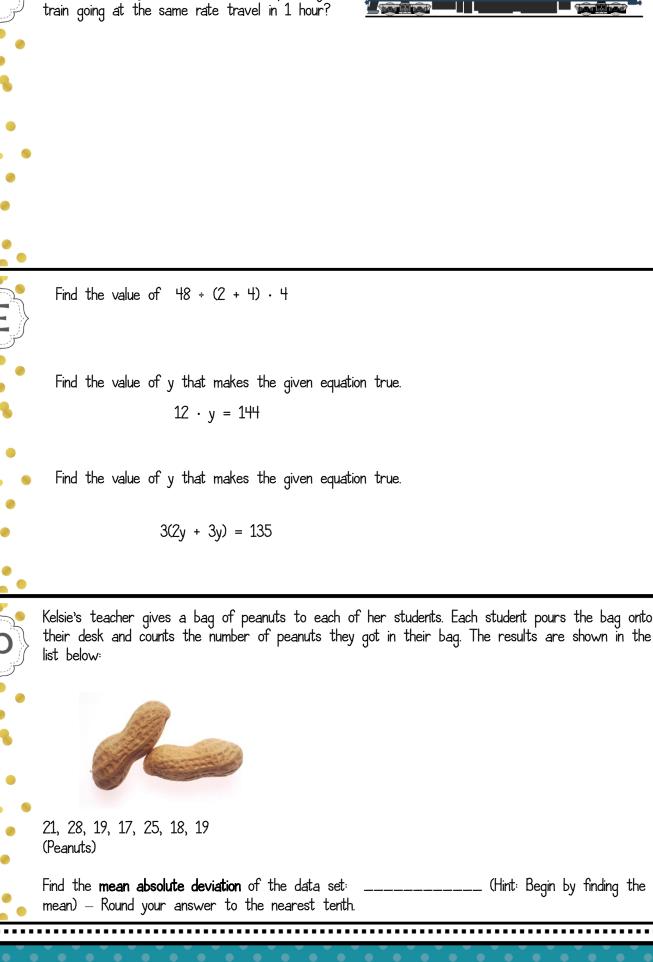
Extra Rigor: What would be the total area of the rectangle created by adding the blue congruent triangle?

Tammy is making Valentine's Day cards for her classmates. She puts a chocolate with each one. The chocolates come in packs of 5 and the cards come in packs of 12. What is the least number of packs of cards and chocolates she would need to buy to not end up with any leftover chocolates or cards?



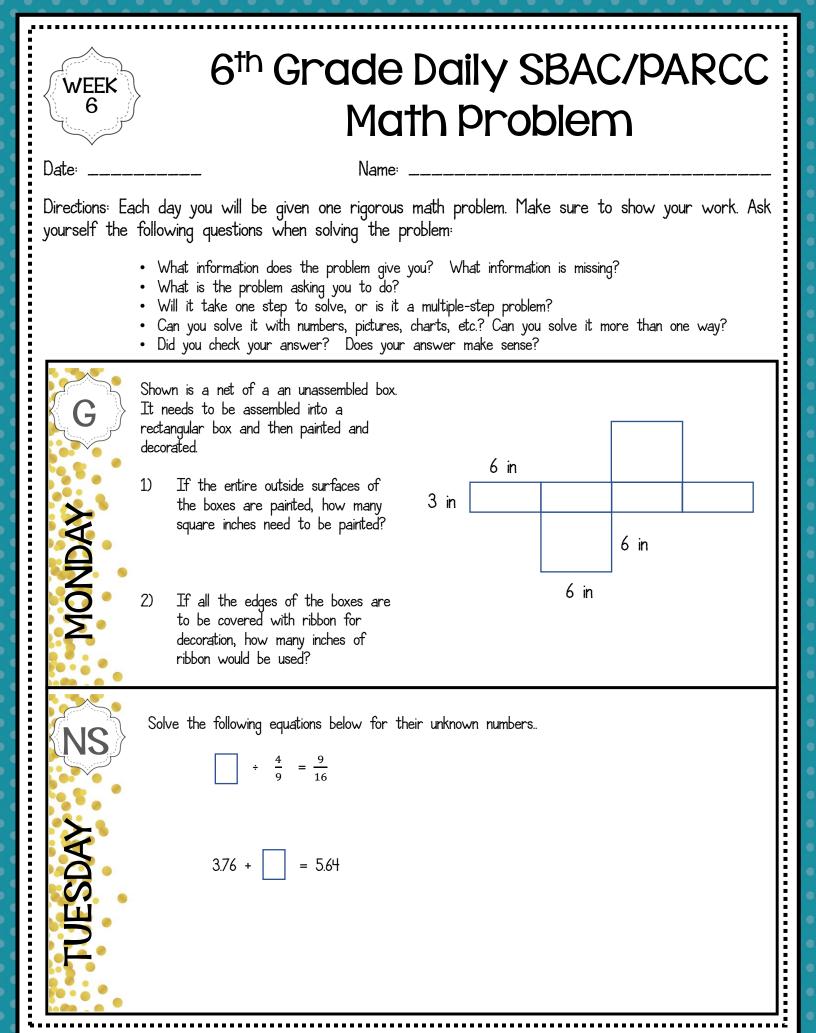
.\_\_\_\_ packs of cards

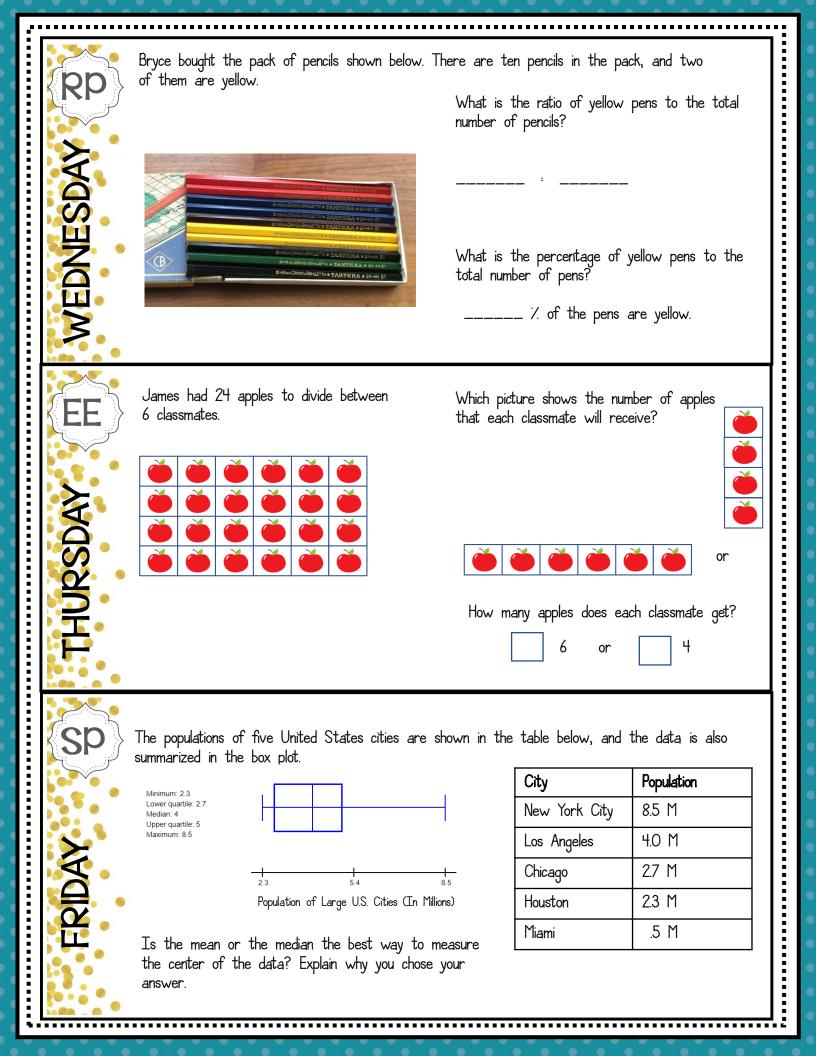
\_\_\_\_ packs of chocolates

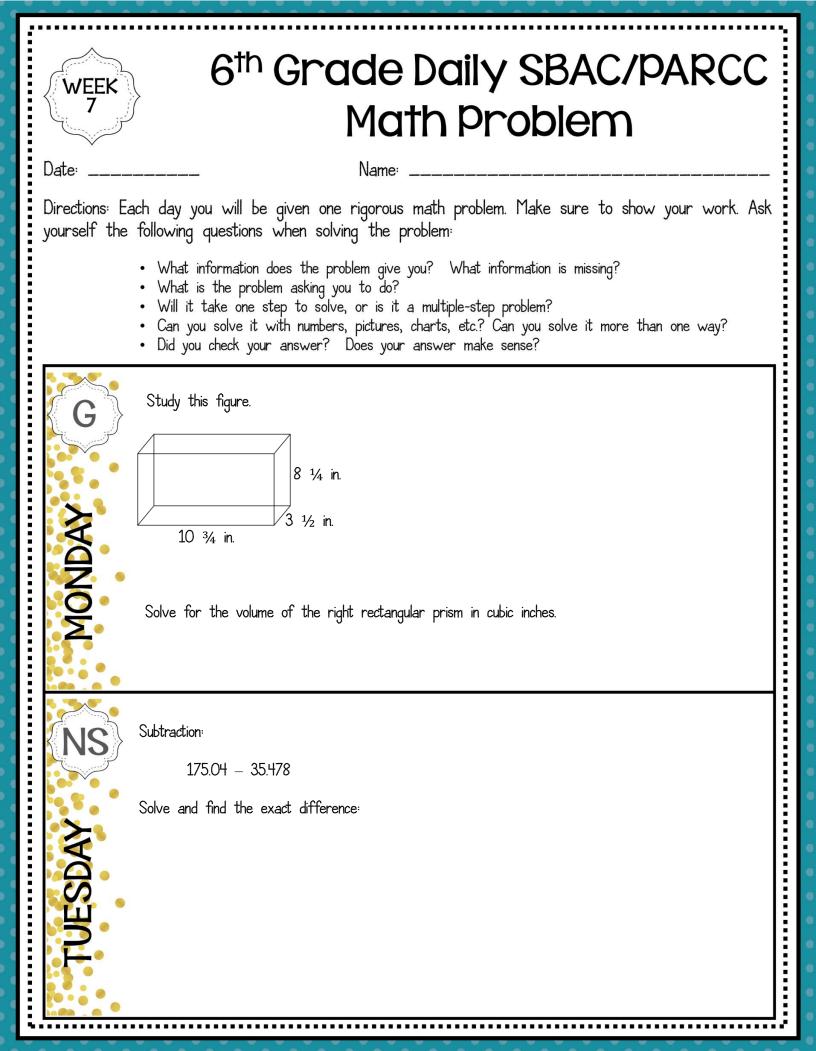


A passenger train can travel 225 miles in 3

hours. How many miles can the same passenger









In the sixth grade, the teachers decided to use flexible seating for their students to enjoy. For every 3 standard student chairs, the teachers purchased 7 flexible seating (yoga balls, stools, etc.)

Identify the equivalent ratio(s) of standard seating to flexible seating options. Select all that apply.

0	30 : 49
0	9 : 21
0	12 : 30
0	15 : 35

Savannah loves predicting the weather. It has been record hot temperatures all week. She is predicting that the weather temperature will drop between 10% and 20% from today's unbearably hot temperature. Today the temperature is 100°F.

Select **all** the correct answers if her prediction comes true.

o **85**℃F

o **75**℃F

∘ **89°**F

∘ **95**•F

19 sixth-grade students were asked how many text messages they had sent on a particular day. The results are shown in the line plot shown:



Determine whether each statement about the line plot is true or false:

Statement	True	False
The line plot shows a uniform distribution.		
The line plot is skewed to the right.		
The line plot shows a cluster of data from 7 to 9.		



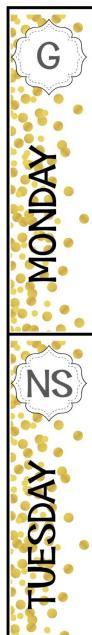
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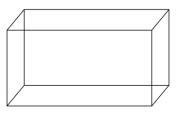
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- · Did you check your answer? Does your answer make sense?



You are finding the volume of a rectangular prism, select all measurements that could represent a correct answer:



- $\circ$  8 cm<sup>2</sup>  $\circ$  125.5 in<sup>3</sup>
- $\circ$  22.8 km<sup>3</sup>
- $\circ$  64 <sup>3</sup>/<sub>4</sub> mm<sup>2</sup>

Snow will no longer melt when the weather is at  $O^{\circ}F$  (zero degrees Fahrenheit). Indicate ALL the pictures that most likely show a temperature of less than  $O^{\circ}F$ . Then, explain the relationship between temperatures and a number line.



Enter the unknown value that will make the following statements true:

100% of \_\_\_\_\_ is 75.

75% of 100 is \_\_\_\_\_

Select all of the expressions that are equivalent to x + 2x + 2 + 3x + 3.

Review the data set below:

{ 18, 10, 9, 16, 20, 15 }

Calculate the mean of the data set: \_\_\_\_\_

Calculate the median of the data set: \_\_\_\_\_

Calculate the range of the data set: \_\_\_\_\_



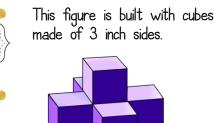
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What is the volume of the entire figure? \_\_\_\_\_

A box of Cheerios is  $\frac{1}{2}$  full of cereal. One serving of cereal is  $\frac{1}{8}$  of the box. Enter the number of servings of Cheerios that are left in the box.



Daisy is very fast at texting. She can text 135 words in 3 minutes. If she maintains that same speed of texting how many words can she text in 5 minutes?

In order to be healthy, you should sleep at least 8 hours per day. This would be written as the following ratio:

8 hours : 1 day

Based on the above rate of sleep per day recommended, complete the following statement:

In order to be healthy, you should sleep:

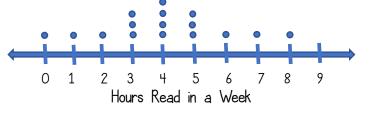
Rr

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\_\_\_\_ hours in 3 days.

122

Jason conducted a survey and asked his friends how much time they spent reading each week. Choose true or false for each statement below.  $_{ullet}$ 



•	Statement	True	False
•	The number of friends asked is 17.		
	The data is skewed to the right.		
	The data is symmetric.		

	Daily SBAC/PARCC th Problem
Date: Name:	
Directions: Each day you will be given one rigorous yourself the following questions when solving the p	; math problem. Make sure to show your work. Ask problem:
<ul> <li>What information does the problem give</li> <li>What is the problem asking you to do?</li> <li>Will it take one step to solve, or is it</li> <li>Can you solve it with numbers, pictures,</li> <li>Did you check your answer? Does your</li> </ul>	a multiple-step problem? charts, etc.? Can you solve it more than one way?
Plat three and points of a triangle	<i>y</i>
$\left\langle G \right\rangle$ Plot three endpoints of a triangle:	6
Point X: (-3, -1) Point Y: (-3, 4)	4
Point Z: (5, 4)	
Enter the length of Side XY: Enter the length of Side YZ:	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
• Enter the length of Side YZ:	
5	
Consider the ordered pairs listed below. Ind is located in on a coordinate grid. (4 _6)	licate which quadrant each of the ordered pairs
	Quadrant
(-1, -4)	Quadrant
(-1, -4) (6, 5) (-3, 5)	Quadrant
(-3, 5)	Quadrant

	1
	You need to convert 4.5 feet into centimeters for an assignment you are working on.
(RD)	You know that 1 inch = $2.54$ centimeters. Solve the following equation to figure out how many centimeters are in 4.5 feet.
ESDAY	<u>4.5 feet • inches • 2.54 centimeters</u> 1 1 foot 1 inch
WEDNES	
EE	For the expressions in A-C, select Yes or No to indicate whether the pairs are equivalent expressions or not:
	A) Are 3(5x - y) and 15x - 3y equivalent expressions? Yes No
7	B) Are 54 + 18y and 9(6 + 2y) equivalent expressions? Yes No
RSD/	C) Are 5(3x + 3y) and 15x + 3y equivalent expressions? Yes No
SUHT	
(SP)	Amanda made a box plot of all her reading scores for the current grading period. The results are in the box plot below:
	Review the statements about the box plot above. Select True or False for each statement
à	Statement True False
	The median is 90.
	The range is 11.
	The range is 20.

WEEK	}	6 <sup>th</sup> Gro	ade Dail Math P	•		ARC	C
Date: Name:							
Directions: Ea yourself the	ich day you following que	will be given one estions when solv	e rigorous math prob ving the problem:	olem. Make sure to	o show y	our wor	k. Ask
	<ul> <li>What is the</li> <li>Will it take</li> <li>Can you see</li> </ul>	ne problem asking y e one step to solv olve it with number	oblem give you? What ou to do? e, or is it a multiple-st s, pictures, charts, etc.? Does your answer mal	ep problem? ? Can you solve it m		one way?	
		fied coordinate poin ther in order from			,		
	Point A: (6, 4)	) Point B: (3, 4) ) Point D: (5, 2)					
	What is the r	name of this shape	·	2			
Enter the length of Side AB:				456	5 6 x		
Extra Rigor:							
Z	Find the area	of the shape:		-5-	,		
A meteorologist was studying the various temperatures throughout the United States on the first day of January at exactly noon. Below is a table showing the temperatures he recorded. Determine whether each statement is true or false.							
		Temperature	Statement		True	False	
	Location	(°F)	Chicago is colder that because -13.7 is lowe	n Anchorage er than -13.4.			
TUESDAY	Detroit	124°	Anchorage' temperatur				
	New York Chicago	20.8° -13.7°	than Detroit's.				
F	Anchorage	-13.4°	The difference betwe Chicago is greater th	nan the difference			
	-	<u> </u>	between Detroit and	Arichorage.			

Statement: At the local grocery store, Paul's Mom bought 4 cartons of milk for \$12...

Look at the statements below and determine if each statement has the same or different unit rate as a carton of milk in the original statement. Indicate your answer in the provided boxes.

Statement	Same Unit Price	Different Unit Price
A bag of coffee sold at \$9 for 3 bags.		
A carton of eggs sold at \$14 for 7 cartons.		
A loaf of bread sold for \$20 for 5 loaves.		
A package of tortillas sold for \$28 for 7 packages.		

Consider the following equations. Select the equation(s) where x = 4 makes the solution true. Select all that apply.

A.	4x = 1	D.	6x + 4 = 24
B.	6x = 24	(E.)	4 <sub>x</sub> = 44
C.	6 + 4x = 22	(F.	3x + 7 = 19

Consider the following data set: 8, 18, 13, 20, 8, 18, 12

Rp

EDNESDA

Two extra numbers, 2 and 10, are added to the data set. Determine if each statement is now True or False and indicate your answer.

Statement	True	False
Adding the extra numbers will increase the range.		
Adding the extra numbers will change the median.		
Adding the extra numbers will not change the mean.		



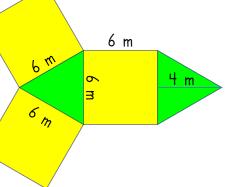
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- Did you check your answer? Does your answer make sense?

This figure represents the net of a triangular-based prism. Find the surface area (in square meters) of the triangular prism.



Consider the following statements shown in the table below. Determine if they are True or False.

Statement	True	False
On a number line, 18.141 and -8.14 are the same point.		
On a number line, the distance from -4.32 to O is equal to the distance from 4.32 and O.		
The distance between -8.19 and 0 on a number line is I-8.191		

John and David went to the shoe store and each bought a pair of the new Jordan Super Fly Rr Basketball Shoes for \$60. At the end of basketball season, they each decided to sell their used shoes: John sold his shoes on eBay for 40% less than he bought them for. David sold his shoes on eBay for 55% less than he bought them for. Determine how much more money (in dollars) John received for his shoes than David received for S N N N his. Enter the value of x that makes the equation below true:  $x + 9\frac{2}{7} = 21\frac{4}{7}$ x =

Consider the following data set: 6, 9, 11, 10, 7, 14, 6, 8, 13

Determine if each statement is True or False and indicate your answer.

Statement	True	False
Changing the 14 to a 3 will increase the mean.		
Changing the 14 to a 3 will decrease the range.		
Changing the 14 to a 3 will not change the median.		



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 $\infty$ 

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- Did you check your answer? Does your answer make sense?

Mrs. Smith tells the students that they need to create Egyptian pyramids made out of cardboard. Students have to figure out exactly how much cardboard they are going to need. In square meters, how much cardboard will this pyramid use?

Carrie has baked a batch of cupcakes. She is using pre-made frosting. On each cupcake she puts 1/8 of a cup of frosting and 7 M&Ms.

Carrie has 3/4 cup of frosting available and 70 M&Ms. She frosts a *whole* number of cupcakes until the frosting is all gone. How many M&Ms did she have left over?



[:	
RP	Johnny's mom bought 5 red apples for every 3 green apples and put them in the refrigerator.
KP	
X	What is the ratio of red apples to green apples?
S	
WEDNES	
A	
EE	Select ALL the set of numbers that are possible values for x in the following inequality: $x \ge$ -4.
	□ {-2, 0, 4}
<b>A</b>	□ {1, 3, 5}
	□ {-4, 0, 4}
Ź	□ {-5, -8, -9}
F	
	Consider the following data: 13 25 17
<b>SP</b>	Consider the following data: 13 25 17 16 16 18
	21 24 19
	Select the box plot which displays the data shown in the above table?
A	
FRIDA	
	13 14 15 16 17 18 19 20 21 22 23 24 25 13 14 15 16 17 18 19 20 21 22 23 24 25 13 14 15 16 17 18 19 20 21 22 23 24 25