

## 7<sup>th</sup> Grade 20 Day Homework Day 1

- 1) Two hundred and twenty people applied to work at Ernest Educational Concepts. After Ms. Ernest reviewed their applications, one-fourth of the people could not pass the math test and one-eighth of the people were late to the interview. What percent of applicants either could not pass the math test or were late to the interview?
- 2) The White House has a collection of 50,000 pieces of art and décor. In October, the Smithsonian American Art Museum displayed 95 of those pieces. What percent of the White House collection was displayed at the Smithsonian?
- 3) A regular heptagon has side lengths of  $\frac{3}{4}$  feet. What is the perimeter of the heptagon in inches?
- 4) A cylindrical vase has a diameter of 6 inches. Liz filled the vase with  $\frac{1}{2}$  a foot of water. If the height of the vase was 13 inches, how many cubic inches of air is left in the vase?
- 5) South Korean teenagers Ha Mok-min and Bae Yeong-ho are the first Mobile Worldcup champions who set a record of texting 356,974 key strokes per minute. How many key strokes per second did they use to the nearest stroke?
- 6) Fifty-two percent of readers polled indicated that "A New Year means it is time for a new hairstyle." What fraction of these readers did not agree?
- 7) Write the first three terms of a sequence for  $(n + 2)^2 - 3n$ :
- 8) If  $(2, 2)$  is translated 3 units to the right and 2 units up, what are the new coordinates?
- 9) The model represents the equation  $3x + 3 = 3y + 3$ . What is the value of  $x$ ?

$$\boxed{x} \quad \boxed{x} \quad \boxed{x} \quad \circ \quad \circ \quad \circ = \boxed{y} \quad \boxed{y} \quad \boxed{y} \quad \circ \quad \circ \quad \circ$$

- 10) Name the following triangle according to its angles and sides:  $50^\circ$ ,  $65^\circ$ , and  $65^\circ$

## 7<sup>th</sup> Grade 20 Day Homework Day 2

- 1) Mr. Lazaro has an acre of land and plans to use  $\frac{3}{4}$  of it for a vegetable garden. If he plants tomatoes in half of the garden, how much of his land will be left to use for something else?
- 2) Limestone must be heated to 2600 degrees Fahrenheit, but magnesium oxide can be prepared for cement at 1,300 degrees Fahrenheit. What is the percent difference between the two?
- 3) Find the radius of a circle whose circumference is 37.052 cm.
- 4) A cylindrical mug has a height of 9.2 cm and a diameter of 8 cm. What is the area of the base of the mug?
- 5) A blueprint has a scale of  $1/8$  in = 1 foot. The drawing shows the width of a window to be  $\frac{3}{4}$  inches wide. What is the actual width of the window?
- 6) Thirty-four percent of readers polled said that they make a point to read their horoscope for the New Year. When asked if they believed their horoscope:
  - 63% of them said "No, but it's still fun to read."
  - 36% of them said "I believe some of it."
  - 1% of them said "I believe all of it."What fraction of the people believed at least some of their horoscope?
- 7) What quadrant does the order pair (-1, 5) lie in?
- 8) Write an equation that describes the following: Karis charges \$11.75 per hour for babysitting which came to a total of \$70.50.
- 9) Which quadrilateral has two pairs of parallel sides and four lines of symmetry?  
Trapezoid, square, rhombus
- 10) Draw the model for  $3^2$

## 7<sup>th</sup> Grade 20 Day Homework Day 3

- 1) We spend approximately a third of our life sleeping. Approximately how many years of sleep would that be for someone who is 41 years old?
- 2) Roberto has \$35.62 to spend. The video store charges \$4.95 per video plus 8.125% tax. How many videos can he rent?
- 3) Stan's kitchen floor measures 22 feet by 16 feet. He plans on laying tile down and each tile piece measures 16 inches by 16 inches. How many tiles does he need to buy?
- 4) A rectangular toolbox has a length of  $1\frac{2}{3}$  ft, a width of 6 inches, and a height of  $7\frac{1}{8}$  inches. What is the volume of the toolbox rounded to the nearest tenth of an inch?
- 5) Javier has a rectangular beach blanket which measures  $5\frac{1}{4}$  by  $3\frac{1}{2}$  feet long. He has a second blanket which is similar and has a width of  $31\frac{1}{2}$  feet. What is the length of the second blanket?
- 6)  $6 \div 2 - 18 \div 3$
- 7) If Point W (5.6, 2.9) is reflected over the y-axis, what will its new coordinate be?
- 8) Model .3(6)
- 9) Which of the following measures would show the variation in data: mean, median, mode, range
- 10) Which of the following has two parallel bases that are not polygons? cone, prism, pyramid, cylinder

## 7<sup>th</sup> Grade 20 Day Homework Day 4

- 1) Ms. Palacios is making mini cakes. Each cake needs  $\frac{1}{5}$  teaspoon of confetti candy. If she has  $15 \frac{1}{8}$  teaspoons of confetti candy, how many whole mini cakes can she decorate?
- 2) Jim is going to purchase a DVD player for \$179.95 plus 8.25% sales tax. If he spreads his payments out over 12 months, what will his monthly payment be?
- 3) A rectangular swimming pool has a base length of 48 inches, a width of 13.5 feet and a height of 4.5 feet. How many feet of railing was used around the perimeter of the pool?
- 4) A rectangular aquarium fish tank is 10.2 meters long, 5.8 meters wide, and 3.5 meters deep. What is B?
- 5) Richard James invented the Slinky in 1943. If one Slinky is produced every eight seconds, how many Slinkys are made in one day?
- 6) Create a list showing the sample space for the following scenario: You can choose between a turkey, ham, or tuna sandwich and then between apple or orange juice.
- 7) Write an equation for the following scenario. Patricia's snack cost \$8.98. After she paid for it, the cashier gave her \$11.02 back. What is x, the amount of money she gave the cashier?
- 8) Triangle ABC has vertices A (h,k), B (i,j), C (m,n). What will the new coordinates be of point B if the triangle is translated 7 units to the left and 4 units down?
- 9) Model  $2.0 \div .1$
- 10) Find the complement and supplement of an angle which has a measure of 150 degrees.

## 7<sup>th</sup> Grade 20 Day Homework Day 5

- 1) During the last four days, Manuel studied for 3 hours,  $2\frac{1}{2}$  hours,  $1\frac{1}{2}$  hours, and 3 hours. What was his median studying time?
- 2) In a class of 40 students, 25% had brown hair. Of the remaining students, 30% of them had blonde hair. How many students had blonde hair?
- 3) Which of the following is not related to linear measure: perimeter, circumference, area, volume
- 4) The triangular base of a prism is a right triangle with sides of 3 in, 4 in and 5 in. The height of the prism is  $1\frac{1}{4}$  ft. What is the volume of the prism in cubic inches?
- 5) A magazine asked readers which songs keep them motivated when they are ready to go to the gym:
  - 9/50 of them said Lady Gaga's "Born This Way"
  - 12/25 of them said The Black Eyed Peas "I Gotta Feeling"
  - 17% of them said Bon Jovi's "It's My Life"
  - .26 of them said Kathy Perry's "Fireworks"
  - .15 of them said Kanye West's "Stronger"

List these answers from least to greatest.

- 6) Wendell was taking a trip from Ernestville to Kerrville and he measured the distance on the map and found it to be 6 inches. The scale on the map says that  $\frac{1}{2}$  inch = 15 miles. What is the actual distance between the two cities?
- 7) The equation  $4x + 2 = x + 8$  is modeled below.

$$\boxed{x} \quad \boxed{x} \quad \boxed{x} \quad \boxed{x} \quad 0 \quad 0 \quad \boxed{x} = 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0 \quad 0$$

What is the value of  $x$  that makes the equation true?

- 8) For the set  $\{1, 12, 1, 8, 2, 7, 4, 6, 5\}$ , which would not be affected if another value of 1 was included? mean, median, mode, range
- 9) Name the following triangle according to its angles and sides:  $45^\circ$ ,  $90^\circ$ , and  $45^\circ$
- 10) Which quadrant is  $(-2, -9)$  in?

## 7<sup>th</sup> Grade 20 Day Homework Day 6

- 1) Mrs. Riojas exercised for a total of 2 hours and spent 75 minutes of that time doing Zumba. What percent of her workout time was not spent on Zumba?
- 2) Melanie estimates that she needs  $4 \frac{1}{16}$  yards of ribbon to decorate a project. The ribbon that she wants costs \$3.56 per yard. What is the total cost of the fabric?
- 3) Paula is going to paint a rectangular piece which measures 12.2 inches by 17.7 inches using purple paint that comes in tubes of 12 ml. One tube can cover a section which measures 2.5 inches by 3 inches. How many tubes of paint should Paula buy in order to finish her project?
- 4) Jorge has a cylinder with a diameter of 22 inches and a height of 15 inches. What is B?
- 5) Two parallelograms are similar. The smaller one has a base of 8 cm and a height of 5.2 cm. The larger one has a base of 17 cm. What is the larger parallelogram's height?
- 6) What is the difference in the amount of degrees that a trapezoid contains and a right scalene triangle?
- 7) Order the following numbers from least to greatest. 15%, 1.5,  $\frac{1}{5}$ , and 15.
- 8)  $44.5 - [4 \cdot (2 + 12) - 22.7]$
- 9) Write the first four terms of a sequence for  $3n + 4(n + 1)$ :
- 10) If a coordinate pair  $(x, -y)$  is reflected over the x-axis, what will its new coordinate be?

## 7<sup>th</sup> Grade 20 Day Homework Day 7

- 1) How many  $\frac{3}{5}$  cups servings of fruit juice can be made from 6 cups of fruit juice?
- 2) A haircut cost \$16 which included tax. Joan tipped 20% and paid with a \$50 bill. What was her change?
- 3) An isosceles triangle has a base length of .17 m, congruent legs of 12.7 cm and a height of 8.8 cm. What is the perimeter in cm of the triangle?
- 4) Adrienne has a new coffee cup. The diameter of her cup is 4 inches and the height is 5 inches. What is the volume of her coffee cup?
- 5) The ratio of the sales price of a coat to the coat's original price is 3:4. If the original price is \$64, what is the coat's sale price?
- 6) Jose is a member of the school's track team. At the last team practice, each runner ran three races and recorded their times. Which measure should he use if he wants to identify the spread of the data? mean, median, mode, range
- 7) A spinner has an equal chance on landing on red, green, or blue. A fair numbered cube is labeled 1 through 6. What is the probability of a player spinning the color green and then rolling a 1 or 2?
- 8) If Point V (-2.3, 6.4) is reflected over the x-axis, what will its new coordinate be?
- 9) Which figures have congruent bases? cylinder, triangular prism, rectangular pyramid
- 10) Draw the model for the square root of 16.

## 7<sup>th</sup> Grade 20 Day Homework Day 8

- 1) Marcus has  $4 \frac{3}{5}$  pounds of cornmeal in a container. He also has a box with 1.5 pound of cornmeal in it. If he pours half the cornmeal from the box into the container, how much cornmeal will be in the container?
- 2) A swimming pool had a list price of \$575.25 and was on sale for 10% off. Sara had a coupon for an extra \$75 off. What will her cost be before tax?
- 3) Find the diameter of a circle whose circumference is 9.42 cm.
- 4) A cube has a side length of 4.1 cm. What is B measured in meters?
- 5) A blueprint uses a scale of  $\frac{1}{4}$  in = 1 foot. If the length of one side of the house is 55 ft, how many inches will the length be on the blueprint?
- 6) The probability of selecting a green straw is  $\frac{3}{8}$  and the probability of selecting a blue marble is  $\frac{3}{12}$ . What is the probability of both happening?
- 7) Triangle GHI has coordinates G (-7, 4), H (-4, 1), I (-3, 5). What will the new coordinates of Point I be if the triangle is translated 4 units to the right and 2 units down?
- 8) Does  $y = 3x + 2$  work for the following table?

x	y
3	11
5	17
10	30

- 9) Find both the complement and the supplement of an angle which measures 100 degrees.
- 10) John scored 15 points in a game. On his next turn, he lost 12 points, and then he lost 5 more points. On his final turn, John gained 6 points. Use a number line model.



## 7<sup>th</sup> Grade 20 Day Homework Day 9

- 1) The large circle has a diameter of 80 feet and the smaller circle has a diameter of 4 feet. What is the area of the unshaded region?
- 
- 2) When asked, 18% of people said that they made different New Year's Resolutions each year. If 900 people were polled regarding their New Year's Resolutions, how many people indicated that they made the same New Year's Resolutions each year?
- 3) Which of the following represents the area of a circle with a diameter of 22 cm?  $11\pi$   $\text{cm}^2$ ,  $22\pi \text{ cm}^2$ , or  $121\pi \text{ cm}^2$
- 4) Joe has a thermos with a radius of 3 inches and a height of 8 inches. How many cubic units of water are needed to fill the thermos?
- 5) Two triangles are similar. The larger one has a base of 6 cm and a height of 11.5 cm. The smaller one has a base of 3 cm. What is the smaller triangle's height?
- 6) Which of the following equations matches this table:
- |                 |             |
|-----------------|-------------|
| $t + 2 = s - 2$ | $s + 2 = t$ |
| $t - 2 = s$     | $s - 2 = t$ |
- |     |    |   |   |
|-----|----|---|---|
| $s$ | 10 | 8 | 6 |
| $t$ | 8  | 6 | 4 |
- 7) What quadrant does the order pair (-2.3, -1.5) lie in?
- 8) Fifty-five percent of people polled say that every year they make New Year's Resolutions. What fraction and decimal would express the amount of people who said that they did not?
- 9) Name the following triangle according to its angles and sides:  $120^\circ$ ,  $35^\circ$ , and  $25^\circ$
- 10) John scored 10 points in a game. On his next turn, he lost 10 points, and then he gained 5 points. On his final turn, John gained 4 points. Use a number line model.



## 7<sup>th</sup> Grade 20 Day Homework Day 10

- 1) How many  $\frac{3}{5}$  pound turkey burger patties can be made from  $4\frac{4}{5}$  pounds of ground beef?
- 2) The volleyball team won  $83\frac{1}{3}\%$  of their games last season. If they played 18 games, what how many did they lose?
- 3) Christina walked once around her block. The block has a width of 420 m and a length of 510 m. How many kilometers did Christian walk?
- 4) A cereal box is  $13\frac{1}{2}$  inches high,  $9\frac{1}{2}$  inches wide and 3 inches long. What is the area of the bottom of the box?
- 5) A wheel spins at a rate of 41 revolutions per minute. How many revolutions per hour does it spin?
- 6) Put these numbers in order from greatest to least:  $2\frac{1}{5}$ , 225%,  $2\frac{1}{8}$
- 7) Write an equation for the following scenario: Carlos spent \$9 of his birthday money and had \$26 left. What is  $x$ , the total amount that Carlos received for his birthday?
- 8) A parallelogram has opposite \_\_\_\_\_ angles and opposite \_\_\_\_\_ sides.
- 9) If Point A (-7.5, 4.1) is reflected over the x-axis, what will its new coordinate be?
- 10) Model  $4.2 \div 2.1$



## 7<sup>th</sup> Grade 20 Day Homework Day 11

- 1) Adrienne, Sara, and their three teacher assistants all agreed to work on the upcoming math unit. Adrienne finished  $\frac{1}{3}$  of it. Sara and the three teacher assistants split the rest of the work up equally. What fraction of the work does Sara still need to do?
- 2) As of April 1, 2010 there were 53,364 centenarians in the United States. In the year 2060, that number is projected to increase to 601,000. What is the projected percent increase to the nearest hundredths place?
- 3) The largest cookie in the world was made by the Immaculate Baking Company (USA) in Flat Rock, North Carolina, USA on the 17<sup>th</sup> of May in 2003 and had a diameter of 101 ft. What was its circumference in inches?
- 4) A large rectangular box holds 12 rectangular shaped smaller boxes. The smaller box measures 4.8 cm by 2.2 cm by 3.4 cm. What is the volume of the large rectangular box?
- 5) Troy was taking a trip from Ernestville to Elsa and he measured the distance on the map and found it to be 4 inches. The scale on the map says that  $\frac{1}{4}$  inch = 10 miles. What is the actual distance between the two cities?
- 6) What quadrant is the coordinate pair (9,-5) located in?
- 7)  $(3 + 13^2)^2$
- 8) A stylist charges a flat fee for a consultation and an additional fee for each accessory used. In the equation  $y = 75x + 320$ , what does  $75x$  represent?
- 9) Find both the complement and the supplement of an angle which measures  $c$  degrees.
- 10) Draw the model for  $4^2$

## 7<sup>th</sup> Grade 20 Day Homework Day 12

- 1) Mrs. Lara needs to make 2 costumes for the math play her students are performing for parent teacher night. The larger costume needs  $5 \frac{1}{5}$  yards of material and the smaller one needs  $\frac{1}{3}$  yards less than the larger one. How much material is needed for the smaller costume?
- 2) Students were tardy to class yesterday and Mr. Vizcaino realized that 66% of the excuses were "lame". If 115 of his students were tardy yesterday, approximately how many of their excuses were legitimate?
- 3) A triangle has an area of  $49.5625 \text{ cm}^2$  and a height of  $8 \frac{1}{8} \text{ cm}$ . what is the base length?
- 4) Find the area of the base of a lap top which measures 11.5 inches by 14 inches.
- 5) At the same time of day, a person who is five feet two inches tall casts a three foot four inches long shadow and a building casts a twelve foot long shadow. What is the building's height to the nearest foot?
- 6) Create a list showing the sample space for the following scenario: You can choose between a chef salad, tuna salad, or chicken salad, and then between ranch or french dressing.
- 7) Triangle DEF has vertices D (j,k), E (l,m), F (n,p). What will the new coordinates be of point F if the triangle is translated 4 units to the right and 1 unit up?
- 8) A triangular prism has a height of 8.75 inches, a base of 11.4 inches and a base height of 3.1 inches. What is the measure of B?
- 9) A spinner has 3 green sections, 2 white sections, 2 brown sections, and 1 red section. What is the probability of spinning white on the first spin and red on the second spin?
- 10) The cost (m), of moving can be found by using the formula  $m = \$1000 + 1.75b$  where (b) is the number of boxes the movers pack. What is the total moving cost if they packed 150 boxes?

## 7<sup>th</sup> Grade 20 Day Homework Day 13

- 1) Mr. Bryan bought 3 pounds of almonds. He used  $1\frac{1}{4}$  pounds as decorations on a cake,  $\frac{1}{2}$  pounds in a mixed party snack, and the rest as a treat for his fellow teachers. How many pounds of almonds did he use for his fellow teachers?
- 2) Within 5 minutes of waking, we forget half of our dreams. Within 10 minutes of waking, we forget 90%. If we remember three dreams within 10 minutes of waking up, approximately how many dreams did we have altogether?
- 3) Rose built a dog pen that measured 8.5 m by 1630 cm. What is the perimeter of the pen in kilometers?
- 4) A rectangular prism has a height of  $\frac{1}{2}$  foot and a square base with a side length of 2 inches. A cylinder has a radius of 2.5 inches and a height of  $\frac{1}{2}$  foot. What is the difference in volume?
- 5) A flying insect flies at 42 miles per hour. If it continues this rate, how far will it fly in 20 minutes?
- 6) A two-pack of markers is priced at \$.59 and a five-pack of markers is priced at \$1.29. Using the above information, complete the following sentence: The unit rate for the two-pack of markers is \_\_\_\_ cents \_\_\_\_\_ than the unit rate for the five-pack of markers.
- 7) If Point W (8, 4) is reflected over the y-axis, what will its new coordinate be?
- 8) The cost (c), of renting skates can be found by using the formula  $c = \$12.00 + 1.25h$  where (h) is the number of hours the skates are rented. What is the total rental cost if Paul used the skates for 2 hours?
- 9) Mr. McClain bought a CD for 40% off the regular price of \$21, not including tax. The next day it was on sale for 70% off its regular price. How much money would he have saved if he had waited to buy the CD?
- 10) A cylindrical storage container has a circumference of 31.4 cm. What is its radius in meters?

## 7<sup>th</sup> Grade 20 Day Homework Day 14

- 1) Mr. Lopez is using  $\frac{7}{8}$  yard of fringe to decorate his lamp. If he cuts off a piece that is  $\frac{1}{6}$  yards long, how much does he have left?
  
- 2) Twelve ounces of cookies is priced at \$2.75 and 16 ounces of cookies is priced at \$3.29.  
Using the above information, complete the following sentence: The unit rate for the twelve ounces of cookies is \_\_\_\_\_ the unit rate for the 16 ounces of cookies,
  
- 3) Deanna drew a circle with a radius of 7 cm. She told her students the circumference was 21.98 cm. Was Deanna correct? (Show your work to prove your answer.)
  
- 4) Find the area of the base of an equilateral triangular prism with a base length of 6 m, a base height of 5.1 m and a height of 10.5 m.
  
- 5) A blueprint shows that a house's length is 80 cm and the width is 30 cm. If the actual house length is 20 meters, what is the actual width?
  
- 6) Mr. Chase and two friends agreed to split the cost of going to a movie. They spent a total of \$26.25 for the tickets, \$36.75 for snacks, and 8% sales tax. How much did each person pay?
  
- 7) Point R is at (-2, -2). If Point R is mapped to R' at (6, 0), then what would Point S(-4, 1) be mapped to using the same rule?
  
- 8) A circular table has a circumference of 18.84 feet. What is the approximate area to the nearest square yard?
  
- 9) What is the 6<sup>th</sup> term in  $2n - 15$ ?
  
- 10) Karen earns \$400 per week plus an additional 4% of her sales. Her salary has increased by \$40 and her commission is now 6%. How much will she earn if her weekly sales are \$2500?

## 7<sup>th</sup> Grade 20 Day Homework Day 15

- 1) Alexa works on math homework for  $2 \frac{3}{8}$  hours each week. If she worked for a total of 35 hours, approximately how many weeks did she work on homework (to the nearest week)?
- 2) Find the volume (to the nearest hundredth of a foot) of the cube whose sides measure 4.5 inches.
- 3) Rich cut a piece of construction paper into a square with a base length of  $9\frac{1}{2}$  inches. How much glitter is needed to cover the construction paper?
- 4) A large rectangular box holds 8 rectangular shaped smaller boxes. The smaller box measures 2.8 cm by 1.2 cm by 3cm. What is the volume of the large rectangular box?
- 5) Mrs. Garcia wants to buy a sweater originally listed at \$34.80 but is now on sale at 25% off. She knows that she has to pay 6% sales tax and she only has \$25 in her purse. How much money does she still need?
- 6) A house is 60 feet wide. A photo shows the width as 2.5 inches and the length as 3 in. What is the actual length in feet?
- 7)  $4 \cdot [(6 + 4) \cdot 15] + 64 \div 2^3$
- 8) What quadrant is (11, -5) located in?
- 9) Ms. Torres bought a couch for \$850.57 and a chair for \$225.98. After including 7% sales tax, how much will her payments be if she wants to pay it off in 15 equal payments?
- 10) Find both the complement and the supplement of an angle which measures  $2x$  degrees.

## 7<sup>th</sup> Grade 20 Day Homework Day 16

- 1) Five pounds of oranges is priced at \$2.99 and 8 pounds of oranges is priced at \$5.25. Using the above information, complete the following sentence: The unit rate for five pounds of oranges is \_\_\_\_\_ the unit rate for 8 pounds of oranges.

- 2) Does the rule  $\frac{n+1}{4}$  work for the following sequence?

Position, n	Value of term
1	.5
2	.75
3	1.25

- 3) Veronica's back yard is shaped like a regular pentagon. The length of one side of the yard is 13.1 feet. What is the perimeter of her yard in inches?
- 4) Find the area of the base of a cylinder with a diameter of 8 yds.
- 5) A computer program randomly selects a number between 1 and 5. At the same time, Jasmine has a bag of five tiles that are numbered between 1 and 5. What is the probability that the computer program and Jasmine pick the same number?
- 6) If Point W (-4, -2) is reflected across the x-axis, what will the coordinates of W' be?
- 7) Write an expression which expresses circumference if the radius is 4 centimeters.
- 8) Shirley bought 4 jackets for \$90.30. If each jacket cost \$21 before tax was added, what tax rate did she pay?
- 9) A rectangular window has an area of 22.26 square inches. If the width is 4.2 inches, what is the length?
- 10) Is driving 60 miles in 45 minutes equivalent to driving 180 miles in  $2\frac{1}{2}$  hours?

## 7<sup>th</sup> Grade 20 Day Homework Day 17

- 1) Write an expression which solves for the radius of an object having a circumference of 30 feet.
- 2) A package of three notebooks is priced at \$3.29 and a package of four notebooks is priced at \$4.28. What is the unit cost per notebook in the package of three?
- 3) A cylinder has a volume of 196.25 cm and a diameter of 5 cm. What is the height in kilometers?
- 4) A blueprint uses a scale of  $\frac{1}{2}$  inches = 1 foot. If the length of one side of the house is 95 ft, how many inches will the length be on the blueprint?
- 5) A soda can with a diameter of 8 cm has a height of 18 cm. Find B.
- 6) Point A is at (-2, -2). If Point A is mapped to A' at (6, 0), then what would Point S (1, 6) be mapped to using the same rule?
- 7) A triangular prism with a base length of 9.1 cm and a base height of 10 cm has a prism height of 12.3 cm. Find B.
- 8) Name the following triangle according to its angles and sides:  $30^\circ$ ,  $120^\circ$ , and  $30^\circ$
- 9) Mrs. Villafranca tosses 3 fair coins. What is the probability that all three coins will land tails up?
- 10) A rectangle has a perimeter of 36 inches and a length of 5 inches. What is the area?

## 7<sup>th</sup> Grade 20 Day Homework Day 18

- 1) A model truck is built to a scale of 1 in: 12 ft. If the model truck is 11 inches long, what is the length of the actual truck rounded to the nearest foot?
- 2) A lawn is shaped like a parallelogram with a base of 40 feet and a height of 12 feet. Covering the lawn with landscape rocks will cost \$5.70 per square foot. How much money will it take to do this?
- 3) A couple bought a house and decided that they would pay 25% of their monthly income of \$5,478.92 toward their monthly mortgage. How much was their mortgage?
- 4) Allen's age is 5 years less than twice Greg's age. If Allen is 17 years old, write an equation which can be used to find  $x$ , Greg's age.
- 5) A watch loses 4 minutes every 36 hours. How much time will it lose in 3 hours?
- 6) Name the following triangle according to its angles and sides:  $90^\circ$ ,  $45^\circ$ , and  $45^\circ$
- 7) A cylindrical water tank has a radius of 3 ft and a height of 4 ft. If the tank is full, and the water is pumped out at a rate of 32 cubic feet per minute, about how long until the tank is empty? Fill in the blanks to complete your answer: between \_\_\_\_\_ and \_\_\_\_\_
- 8) Two rectangles are similar. The larger one has a length of 10 cm and a width of 7.2 cm. The smaller one has a length of 6 cm. What is the smaller rectangle's width?
- 9) Felipe earns \$450 per week plus an additional 15% of his sales. His salary has increased by \$40 and his commission is now 24%. How much will he earn if his weekly sales are \$1500?
- 10) A 12 ft by 15 ft rectangular floor will be covered with square tiles that measure 2 ft on each side. How many tiles are needed?

## 7<sup>th</sup> Grade 20 Day Homework Day 19

- 1) Two triangles are similar. The smaller one has a base of 5 cm and a height of 4.7 cm. The larger one has a base of 16 cm. What is the larger triangle's height?
- 2) A couple bought a house and decided that they would pay 32% of their monthly income of \$4,178.62 toward their monthly mortgage. How much was their mortgage?
- 3) A cylinder has a volume of 42.39 cm and a diameter of 3 cm. What is the height?
- 4)  $3 + 6^2 - 42$
- 5) Jake bought 3 dozen cans of soda priced at 6 for \$2.50 and 18 bottles of water priced at 6 for \$3.48. What was the total after the 8.25% sales tax?
- 6) If Point W (-5, -7) is reflected across the x-axis, what will the coordinates of W' be?
- 7) An angle measures  $15^\circ$  more than its complement. What is the measure of each angle?
- 8) Francine rolls a fair number cube numbered 1-6 and then she spins a spinner that has 4 sectors (green, red, red, blue). What is the probability that she rolls a 5 and then spins red??
- 9) Find the circumference of a racetrack whose diameter is 22 feet.
- 10) A cube has sides with the following numbers: 3, 3, 6, 9, 7, 8. What is the probability of getting a factor of 9 on the first roll and then a composite number on the second roll?

## 7<sup>th</sup> Grade 20 Day Homework Day 20

Write the following sentences five times each.

- 1) Unit rate or unit cost means that they want the price of just one item.
- 2) There is graph paper in my test booklet and I will use it.
- 3) I will always look up the formulas that I need instead of trying to "remember them"!
- 4) I need to be very careful when multiplying and dividing decimals.
- 5) Most of these problems require at least two steps. So if I did the problem in five seconds, I probably did it wrong.
- 6) When I see a picture, I will cover it up with my hand and then read above my hand and below my hand. Now I can look at the picture!
- 7) This is not a math test. This is reading test in disguise.
- 8) Problems that have graphs, charts, and tables still require me to do math! So if I did not do any math on these problems, then I probably got the problem wrong.
- 9) I can do this!
- 10) I will do this!