Review Packet – Alternate Assignment

Do every problem. Show all work for each problem!

1) Which set of ordered pairs represents a function? 2)

Derrick and Mary are tutors. The equation shows Derrick's rate and the table shows Mary's rate. What is the difference between Derrick's and Mary's hourly rate? **Derrick's**

- (0, 0), (0, 1), (0, 2), (0, 1)
- \mathbb{B} {(0, 0), (1, 1), (1, -1), (4, 2)}
- (0, 2), (1, 2), (2, 2), (3, 2)
- (1, 2), (3, 4), (1, 4), (3, 2)

Tutoring Rate y = 15x

Mary's lutoring Rate		
Hours of Tutoring, x	Pay, y	
3	\$ 75	
5	\$125	
7	\$175	
9	\$225	

3) Five students started the month with a specific amount of money they could each spend. The money each student spent during the month is represented in the graphs and tables below.



4) According to the US Census Bureau, as of April 1, 2000, the total population of the United States was about 3 x 10⁸. The population of Vermont was about 6 x 10⁵. The population of the United States was how many times the population of Vermont in April 2000?

5) Two of these are equivalent. Which ones? Show work for all three expressions.

 $4x^6 \cdot 2x^6 \qquad \frac{8x^{14} \cdot 8x^0}{4x^2}$ $(2x^3)^4$

6) Rhombus KLMN, shown on the grid, rotates 90° counterclockwise around the origin. Then it translates 6 units down. Draw the image of KLMN.



7) A triangle is shown. Use the grid to create 8) Select all the numbers that are irrational. the image of the triangle after it is reflected over the y-axis and then dilated about the



∧ ∛16 ∎ √25 _ ∛64 ▶ √168 ∎ ∛27

9) Figure *RSUV* is a square and triangle *SUT* is a right triangle.



10) Hal usually walks <u>directly</u> from school to home. However, one day, he wanted to buy some gum, so he walked from school to the gas station, then from the gas station to his home. Each unit on the graph represents 500 feet. Rounded to the nearest foot, how much **farther** did Hal walk going to the gas station and then home than when he walked directly home? (Read that last sentence carefully!)



12) Solve the system of equations.



If the measure of angle STU is 31°, what is the measure of angle RST?



- ₿ 90°
- © 121°
- 149°

11) Equation P: 2(x + 5) + 3x = 5x + 5Equation Q: 4x + 8 - 3x = 5 - 2x + 3 + 3x

Which of the following is true?

- A) Equation P has no solution and equation Q has one solution.
- B) Equation P has no solution and equation Q has infinite solutions.
- C) Equation Q has no solution and equation P has infinite solutions.
- D) Both equations have infinite solutions.

13) Find the total volume. Round to the nearest tenth.



14) Choose the correct statement about the scatter plot.

A) Each hour of studying led to an increase of about $\frac{1}{2}$ points.

B) Each hour of studying led to an increase of about 4 points.

C) Each hour of studying led to an increase of about 10 points.

D) Each hour of studying led to an increase of about 25 points.



15) A sample of middle schoolers, was surveyed about which type of music they prefer – pop music or rock music. The results are given in the frequency table below.

	Рор	Rock	Total
7 th graders	50	45	
8 th graders	50	75	
Total			

Who was more likely to choose pop: 7th or 8th graders? Justify your reasoning.

16) Find as many pairs of angles as you can that MUST be congruent, and explain why.

