RVMS Math 8 Final
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1. Select **ALL** of the expressions that have a value between 0 and 1.

2. Which *irrational* number in this set of numbers has the greatest value?

3. Which of the following expressions are equivalent to $\frac{x^2}{3y}$? Select **ALL** that apply.

4. The distance from the Earth to the moon is approximately 2.4×10^5 miles. Which number(s) are equivalent to 2.4×10^5? Select **ALL** that apply.

5. Which of the following statements are true about the slope of a line? Select **ALL** that apply.

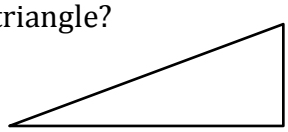
6. Select **ALL** of the equations that represent a linear function.

7. What is the distance between the points (0, 0) and (12, 5) on the *xy*-coordinate plane?

8. Find the equation(s) that represent the data in the table below. Select **ALL** that apply.

x	-3	0	4	5
y	-14	-5	7	10

9. What is the approximate length of the missing side of this triangle?



10. Grapes are on sale for 2 pounds for $1.50. Which graph(s) shows the relationship between the pounds of grapes purchased and the total cost?

11. Steph Curry's 3-point field goal average this season is $0.\overline{42}$. Being an avid math geek, he wants to know the fraction equivalent to the decimal. Which fraction represents Steph's 3-point field goal average? Select **ALL** that apply.

12. Which of the following situations or word problems could be modeled by the equation $y = 3x + 4$? Select **ALL** that apply.

13. Trapezoid *FROG* is shown on the coordinate grid below. If you translate trapezoid *FROG* 5 units to the right and 2 units up, what would be the coordinates of the point that would correspond to point *F*?

14. Determine which equation(s) are equivalent to $3x - 4(2x + 4) = 4 - 9x$. Select **ALL** that apply.

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15. Four students solved the equation $4(2x + 3) = 36$ in different ways, but each student arrived at the correct answer. Select all of the solutions that show a correct method for solving the equation. Select **ALL** that apply.

16. Which of the following represents the solution to a system of linear equations on a graph? Select **ALL** that apply.

17. The values in the table below represent a function. Which of the following could be a reason(s) why we know this is a function? Select **ALL** that apply.

18. Which graph best represents the description below?

Fiona is sitting at home and gets a craving for frozen yogurt. The yogurt shop is 2 miles from her house. She hops on her bike and starts to ride. She gets to the yogurt shop in 20 minutes. She stops and enjoys a yogurt for 10 minutes, and then bikes back home. It takes her 30 minutes to get back home.

19. Triangle *DOG* is dilated with the origin as the center of dilation. Which ordered pair(s) could represent the image of point *G*(2, 3) after the dilation? Select **ALL** that apply.

20. Find the Point of Intersection (POI) for this system of equations. (Make up your own systems…)

21. Select **ALL** of the statements that are true about this scatter plot?

22. Which of the following are true of this two-way table? Select **ALL** that apply.

	Chocolate	Vanilla	Strawberry	Total
Democrat	26	43	13	82
Republican	45	12	8	65
Independent	9	13	4	
Total		68	25	173

23. What is the volume of this cone?

24. Right triangle *ABC* and right triangle *ACD* overlap as shown below. Angle *DAC* measures 20° and angle *BCA* measures 30°. What are the values of *x* an