Math 7/7+ Q3W4 Weekly Spiral Review **No Work = No Credit** **Due: 1/26/2018**

1. Which answer shows the factored form of -8wx + 2wz – 6w

   A. $-12(w+x+z)$ **B.** $2w(4x-z+3)$ **C.** $-8w(x+2z-6)$ **D.** $-2w(4x-z+3)$

2. Expand the expression below. (Perform the distributive property) $6y\left(\frac{2}{3}x+6k-\frac{1}{2}\right)$

3. Simplify: 8 – 5(x – 3)

4. Steven is training for a race. He can currently run 1 mile in 7 minutes and wants to improve his time by 10 seconds each week until he can run one mile in 5 minutes. Which equation should Steven use to calculate the number of weeks (*w*) it will take him to reach his goal time of 5 minutes?

   A. $7-10w=5$ **B.** $10w+7=5$ **C.** $10w-7(60)=5(60)$ **D.** $7(60)-10w=5(60)$

5. Mr. Tanner bought some boxes of markers with 18 markers in each box. He kept 2 markers and gave the rest to his students. Write and solve an equation to calculate the number of boxes (*b*) he bought.

6. A rectangular playground has a length of 40 feet and a perimeter of 120 feet. What is the width of the playground? You must write and solve an equation to receive credit.

7. Mr. Harold's total pay for last week was $875. He was paid $25 per hour plus a bonus of $75. How many hours did Mr. Harold work last week? You must write and solve an equation to receive credit.

8. Patricia has $12 to spend at an arcade. The arcade charges $6 admission and $3 per hour to play as many games as she wants. Write and solve an inequality to find any possible number of hours, *x*, Patricia can play games without spending more than $12.

9. Mary used $\frac{1}{2}$ of a can of paint to cover $\frac{1}{8}$ of the outside of her house. How many cans of paint will Mary need to cover the entire outside of her house?

10. Ally's hair grew from $10\frac{3}{4}$ inches to $13\frac{1}{4}$ inches over 5 months. At what rate did Ally's hair grow per month?

11. Jennifer walks $\frac{3}{4}$ mile in $\frac{1}{4}$ hour, and Gavin walks $\frac{1}{8}$ mile in $\frac{1}{12}$ hour.

    Part A. What is Jennifer's walking rate, in miles per hour?

    Part B. What is Gavin's walking rate, in miles per hour?

12. Franco read $\frac{3}{8}$ of a chapter of his history book in $\frac{1}{5}$ of an hour. At this rate, how many chapters of his history book can he read in 1 hour?

13. A certain laundry detergent recommends $\frac{1}{4}$ cup of detergent for a $\frac{1}{2}$ load of clothes. How much detergent is recommended for 4 loads of clothes?

14. For which situation does the money amount not vary directly with time?

    A. working for $15 per hour

    B. renting an apartment for $500 per month

    C. paying a cell phone bill with a charge of $0.35 per minute

D. balance per month of a savings account receiving $5 per week

15. Which equation shows a true proportion?

A. $\frac{5}{7} = \frac{7}{5}$ **B.** $\frac{5}{7} = \frac{25}{49}$ **C.** $\frac{5}{7} = \frac{7}{9}$ **D.** $\frac{5}{7} = \frac{15}{21}$

16. Which table shows the relationship between x and y as a direct variation?

A.

x	2	4	8	10
y	5	9	17	21

B.

x	1	3	5	6
y	4	12	20	24

C.

x	2	3	4	5
y	4	9	16	25

D.

x	2	3	6	12
y	6	4	2	1

17. Which situation best represents a proportional relationship?

A. A 20 × 24-inch photo is reprinted into a 5 × 6-inch photo.

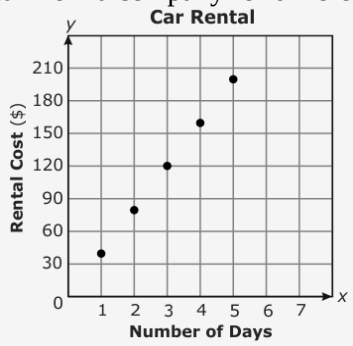
B. A turtle traveled 1 meter in 1 hour and 2 meters in 2.5 hours.

C. Two pencils are sold for $1. Ten of the same pencils are sold for $6.

D. One apple had 6 seeds, two apples had 8 seeds altogether, and 3 apples had 10 seeds altogether.

18. Mike bought 4.5 pounds of bananas for $5.40. What is the price per pound for the bananas? NO CALCULATOR! You must show your calculations to receive credit.

19. The graph below shows the cost to rent a car from a company for different numbers of days. What is the cost per day to rent a car?



20. The graph below shows the prices at which Joanna sells tomatoes according to their weight. At what rate does Joanna sell the tomatoes?