



Rising 8th Grade Skinner Scholar and Family,

As the school year comes to a close, we realize that you are looking forward to the sunny days and relaxation!!

In addition, we realize that students need to keep academic skills fresh for the next school year, and we are hoping for a smooth transition into 8th grade math. We have compiled math work for you to complete before entering 8th grade. There is a mix of skills from previous grade levels (identified in the standards) as well as some conceptual work from 7th grade math. All of these skills are needed to progress through the 8th grade math curriculum. In addition, the summer homework helps the teachers identify where student strengths and areas for growth are.

The assignments attached are due the first day of school, to their math teacher.

We expect that all students coming into 8th grade have multiplication facts memorized, as well as exhibit fluency in basic division. If you are having difficulties with a concept we suggest to visit khanacademy.com or youtube.com (and search the skill/concept) for “how to” videos.

For more challenging problems, www.illustrativemathematics.org is a great site that offers challenging problems/tasks at all grade levels.

We all look forward to the 2018-2019 school year and are excited for a great last year of middle school with your scholar.

Sincerely,

The 8th Grade Math Team

If any questions arise, please feel free to contact Jessica Piwko @ Jessica_piwko@dpsk12.org or Deb Maruyama @ Deborah_maruyama@dpsk12.org

Students with Individualized Educations Plans (IEP) can contact Janelle May via email at Janelle_may@dpsk12.org for a modified version of the summer homework.

Summer Homework 2018

Find each quotient. Show all work and thinking to receive credit. (aligned to 6.NS.2 - dividing multi-digit values)

1) $32 \div 8$

2) $800 \div 32$

3) $1008 \div 42$

4) $2000 \div 40$

5) $720 \div 36$

Find each quotient. Show all work and thinking to receive full credit (aligned to 6.NS.3 - operations with decimals & 7.NS.2 - division with integers)

6) $\frac{-0.86}{2.4}$

7) $\frac{1.4}{-2.8}$

$$8) \frac{-3.8}{-4.7}$$

$$9) \frac{-1.3}{1.9}$$

Evaluate each expression (aligned to 7.NS.1 - adding and subtracting integers)

$$10) -3 + -1$$

$$11) -4 + -1$$

$$12) 5 - -8$$

$$13) 6 + -6$$

$$14) 4 - -5 - 6$$

$$15) -4 + 5 - 7$$

$$16) 5 - 4 + 4$$

$$17) 5 + -8 + -7$$

Evaluate each expression. Show all work and thinking to receive full credit (aligned to 6.EE.1 – equivalent expressions and 7.EE.1 – expand expressions)

1) $[42 \div 7] 3 - 2 \cdot 3$

2) $[2 \cdot 32 - 3] + 2$

3) $5 \cdot [60 \div 5 - 4] 2$

Solve each equation. Show all work step-by-step to receive full credit (6.EE.7 – solving equations & 7.EE.4 – solving equations)

1) $\frac{n}{5} = 10$

2) $9 + m = 12$

3) $2x + 7 = 15$

4) $12 = 3(x + 2)$

5) $2x - 8 = 2$

6) $-10 = -4 + x$

7) $7z - 14 = 21$

8) $-3(3d - 9) = 0$

Find each product (aligned to 5.NF.4 - multiplying fractions & 7.NS.2 - multiplying rational numbers)

1) $-1\frac{1}{5} \times 1\frac{2}{3}$

2) $\frac{1}{2} \times -\frac{3}{4}$

3) $1\frac{4}{5} \times -1\frac{7}{9}$

4) $-1\frac{4}{5} \times -\frac{2}{3}$

5) $-2 \times \frac{1}{2}$

Evaluate the following expressions (aligned to 6.EE.1 – evaluate expressions w/whole number exponents)

1) $4^2 =$ _____

2) $3^3 =$ _____

3) $6^2 =$ _____

4) $3^2 + 5^2 =$ _____

5) $7^1 + 8^2 - 5^2 =$ _____

6) $7^2(1^4) =$ _____

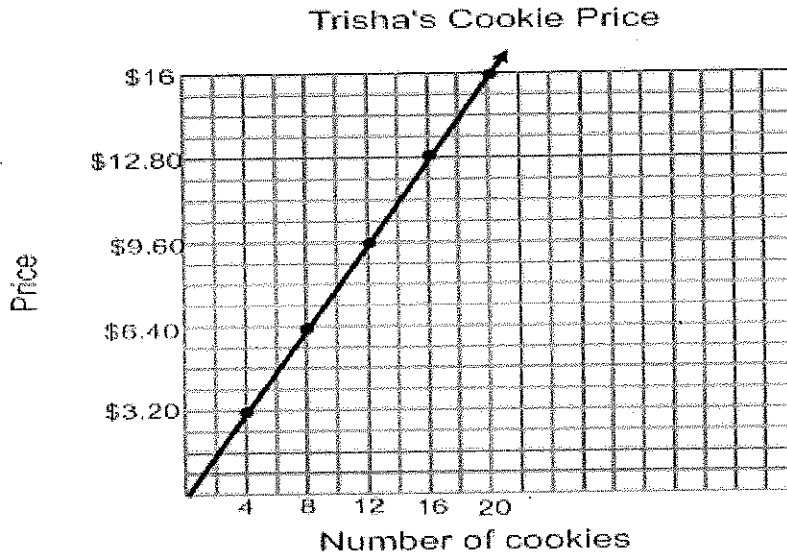
(aligned to 7.RP.2 – calculating unit rate and using tables, graphs, and equations for proportional relationships)

1) Diana travelled 385 miles in 7 hours. What is her average speed in miles per hour? _____

2)

The graph below represents the price of Trisha's chocolate chip cookies. How much would it cost to buy 30 of Trisha's cookies? _____

Justify your answer in the space provided below the graph.



3) Based on the graph, write the equation that represents the number of cookies, x , and the total price, y .

4) The table below represents the amount of snow fall in 5 counties (in inches) to hours of a recent weather storm. Determine if y is proportional to x . Justify your answer.

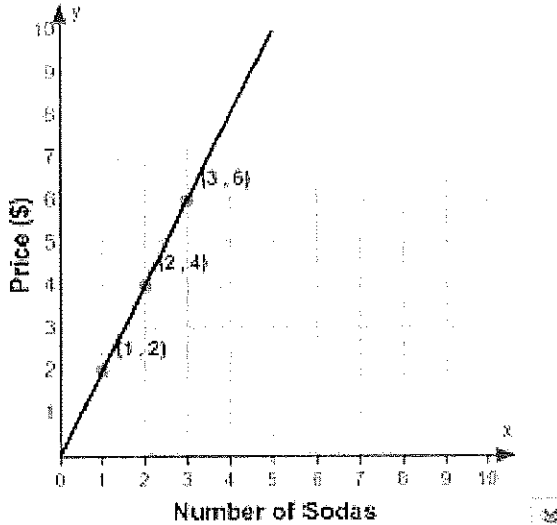
x Time (hrs)	y Snowfall (In)
2	10
6	12
8	16
2.5	5
7	14

Written explanation:

5) For each graph:

- Identify the constant of proportionality
- Write the equation to represent the relationship between the independent and dependent variables

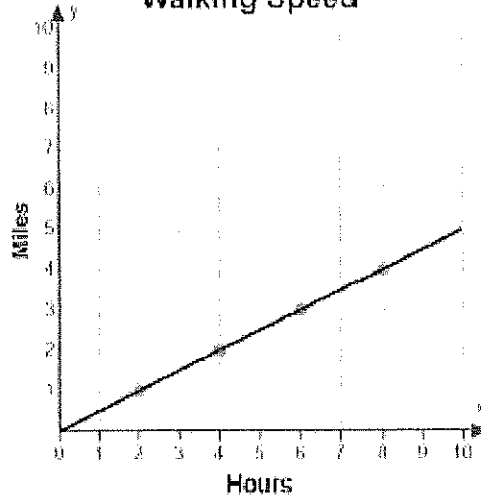
Price of Soda in a Vending Machine



Constant of proportionality: _____

Equation: _____

Walking Speed

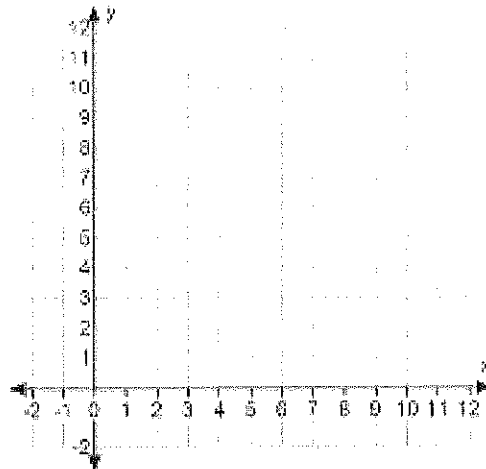


Constant of proportionality: _____

Equation: _____

6) Determine if the relationship shown in the table is proportional. Then, graph each point on the coordinate plane, and connect with a straight line.

x	y
3	1
4	2
5	3
6	4



Proportional: yes or no

Constant of proportionality: _____

Equation: _____