What is my child learning in the 1ˢᵗ Quarter of 7ᵗʰ Grade?

Reading & Writing:

- Recognize and correctly use 7th grade vocabulary. **(7.RV.1)**
- Use context (surrounding words in the passage) clues to understand what you have read. **(7.RV.2.1)**
- Infer (guess) and support answers with evidence from the text. **(7.RL/RN.2.1)**
- Recognize the theme, or the moral, of a story. **(7.RL.2.2)**
- Recognize and understand the elements of plot: exposition (beginning of story; set-up), rising action (what happens leading up to the most exciting part of a story), climax (the most exciting part of the story) , falling action (what happens after the climax) , and resolution (how the story finishes) in a fictional writing. **(7.RL.2.3)**
- Summarize a piece of writing. **(7.RN.2.2)**
- Write a story that contains elements of plot and dialogue. **(7.W.3.3)**
- Through independent reading, students should read at grade level. **(7.COM.1)**

Math:

- Find the prime factors of a number using a factor tree and write them using exponents. (7.NS.1) Prime factorization of 36 is 3 x 3 x 2 written as 3^2 x 2
- Solve expressions and word problems containing negative numbers by using addition. (7.C.1) 8 + (-13) = -5
- Solve expressions and word problems containing negative numbers by using subtraction. (7.C.2) 17 – (- 23) = 6
- Know the rules of multiplying with negative numbers and know how to multiply using the distributive property. (7.C.3) -7(-3 + 2m) = 21 + (-14m)
- Know the rules of dividing with negative numbers and know that a negative fraction is equal to a fraction that has a negative numerator and also to a fraction with a negative denominator. (7.C.4) 48 ÷ - 6 = -8 ; $\frac{-3}{5}$ = $\frac{3}{-5}$
- Combine all of the rules of negative numbers along with the order of operations and apply them to problems with integers and fractions. (7.C.7)

  14 + (-9 + 3) ÷ 6

  14 + -6 ÷ 6

  14 + (-1)

  13
- Write equations for word problems and solve them. (7.C.8)

- Use the properties of math along with combining like terms to create different expressions that are equal to each other. (7.AF.1) $3m + 8c - 2m - 4c + 3 = m + 4c + 3$
- Solve two-step equations and create them to solve word problems. (7.AF.2)

$8r + 14 = 38$

  $\underline{-14 \quad -14}$

$8r \quad\quad = 24$

$8r \div 8 = 24 \div 8$

$r = 3$

- Solve two-step inequalities and create them to solve word problems. Graph the value of "x" on a number line. (7.AF.3)

$8x + 14 > 38$

  $\underline{-14 \quad -14}$

$8x \quad\quad > 24$

$8x \div 8 > 24 \div 8$

$x > 3$

What is my child learning in the 2nd Quarter of 7th Grade?

<u>Reading & Writing:</u>

- Recognize and correctly use 7th grade vocabulary. **(7.RV.1)**
- Understand the difference between prefix (word part before a root word), suffix (word part after a root word), and root word (word in its simplest form), and how different usage can change the tense or meaning of the word. **(7.RV.2.4)**
- Infer (guess) and support answers with evidence from the text. **(7.RL/RN.2.1)**
- Determine whether an author is intending to inform, persuade, or entertain. **(7.RN.3.3)**
- Evaluate an **<u>author's</u>** argument and determine whether the reasoning is logical based on evidence. **(7.RN.4.1)**
- Evaluate a **<u>speaker's</u>** argument and determine whether the reasoning is logical based on evidence. **(7.SL.3.2)**
- Write a persuasive essay that supports logical claims. **(7.W.3.1)**
- Through independent reading, students should read at grade level. **(7.COM.1)**

Math:

- Identify variable or non-variable rates of change. **(7.AF.4)**

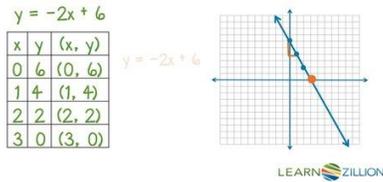Variable   Non-Variable
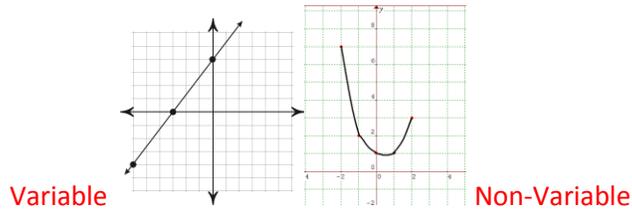
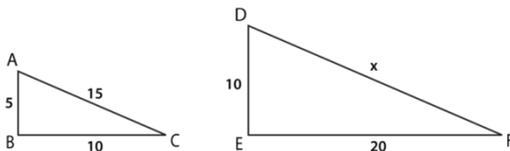- Draw a line when given one point and the slope and find the slope of a line on a graph **(7.AF.5)**
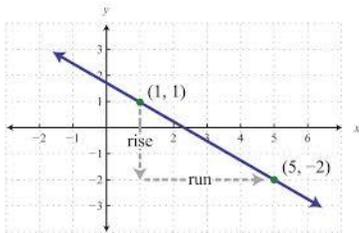
- Identify proportions using tables, graphs and the slope intercept equation. **(7.AF.9)**

Core Lesson

Graph the Linear Function

$y = -2x + 6$

x	y	(x, y)
0	6	(0, 6)
1	4	(1, 4)
2	2	(2, 2)
3	0	(3, 0)

LEARNZILLION

- Solve problems with similar shapes. **(7.GM.2)**

- Solve problems and decide whether numbers are proportional. **(7.AF.6)**

$$\frac{5}{12} = \frac{15}{x}$$

$5x = 180$

$$\frac{5x}{\div 5} = \frac{180}{\div 5}$$

$x = 36$

- Identify unit rates. **(7.AF.7)**

Solve using proportion:

$$\frac{\text{miles}}{\text{hour}} \rightarrow \frac{55}{1} = \frac{495}{t} = \frac{\text{distance}}{\text{time}} \rightarrow \frac{d}{t}$$

use cross products:

$55 \times t = 495 \times 1$
$55 \times t = 495$

divide both sides by 55 to find t:
$t = 9 \text{ hours}$

- Solve problems with unit rates and proportions on a graph. **(7.AF.8)**
- Use proportions to solve unit rates in measurements, areas, and other numbers. **(7.C.5)**

What is my child learning in the 3rd Quarter of 7th Grade?

Reading & Writing:

- Through independent reading, students should read at grade level. **(7.COM.1)**
- Infer (guess) and support answers with evidence from the text. **(7.RL/RN.2.1)**
- Recognize and correctly use 7th grade vocabulary. **(7.RV.1)**
- Interpret figures of speech in literary works. Examples: Idioms (kick the bucket), Metaphors (time is money), Similes (busy as a bee), Onomatopoeia (boom), Hyperbole (you could have knocked me over with a feather), Symbolism (apple pie = America), Alliteration (simple Sally sells seashells), Personification (the sun greeted me) **(7.RV.3.3)**
- Understand the difference between the dictionary definition of words and/or the feelings evoked from the word. **(7.RV.2.3)**
- Understand the difference between cause (what happens first) and effect (what happens due to the cause). **(7.RN.2.3)**
- Effectively write an informative essay that conveys the student's ideas. **(7.W.3.2)**

Math:

- Find the square root of a number. **(7.NS.2)**

    $\sqrt{9} = 3$

    $\sqrt{16} = 4$

    $\sqrt{81} = 9$

- Know the difference between rational and irrational numbers and plot them on a number line. **(7.NS.3)**

    Rational numbers are numbers that v=can be written as fractions. All other numbers are irrational. Pi is an example of an irrational number because it never ends and never has a pattern.

- Use proportions to solve percent problems. **(7.C.6)**
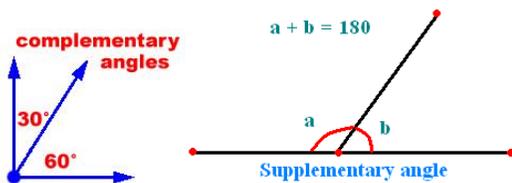
  75% of 20:

  $$\frac{x}{20} = \frac{75}{100}$$
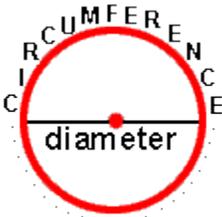
  20 x 75 = 100 times x

  1500 = 100x

  $$\frac{1500}{100} = \frac{100x}{100}$$

  15 = x

- Draw three given angles and determine if it is a triangle. **(7.GM.1)**
- Solve problems that involve vertical, adjacent, complementary, and supplementary angles. **(7.GM.4)**

- Find the area and circumference of a circle. **(7.GM.5)**

- Find the volume of cylinders and prisms. **(7.GM.6)**

What is my child learning in the 4th Quarter of 7th Grade?

Reading & Writing:

- Through independent reading, students should read at grade level. **(7.COM.1)**
- Infer and support answers with evidence from the text. **(7.RL/RN.2.1)**
- Recognize and correctly use 7th grade vocabulary. **(7.RV.1)**
- Read and write some poetry that includes figurative language, such as similes and metaphors. **(7.RV.3.1/3.2)**

- Recognize the difference between first person (the action is happening to the author) second person (the action is happening to the reader) , and third person (the action is happening not to the author or the reader, but in general) point of view. **(7.RL.3.2)**
- Determine the main idea of a passage. **(7.SL.3.1)**
- Effectively write an essay that can compare (how they are alike) and contrast (how they are different) two things. **(7.W.3.2)**

Math:

- Understand how sample data can represent information. **(7.DSP.1)**
  If the sample data of a population representing a larger group shows that 1 in 5 people wear glasses therefore 1000 people in a population of 5000 will wear glasses.
- Use data to draw inferences about a population. (7.DSP.2)
- Find mean, median, mode, and range of numbers. (7.DSP.3)
  From a given set of numbers:
  The mode is the number that appears the most.
  The median is the middle number when you arrange them from lowest to highest.
  The mean is the average of all of the numbers.

  3,5,6,6,7,8,9
  The mode is 6
  The median is 6
  The mean is 3+5+6+6+7+8+9=44
  44÷7 = 6.29
- Create line and box and whisker plots. **(7.DSP.4)**
  A box and whisker plot uses the median and the mean to show the data above a number line. Any numbers that fall outside of the accepted range are called outliers. An example of this would be 10 cars built in the 21st century and one car from the 1930's. The upper extreme would be the newest car, and the lower extreme would be the oldest car from the 21st century. The car from the 1930's would be an outlier because it's an exception.
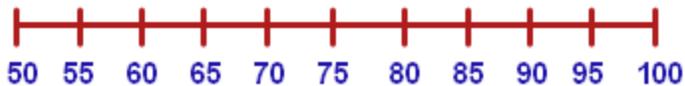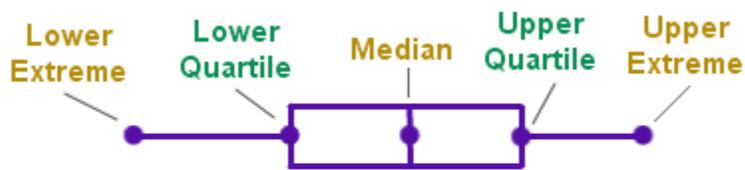
- Learn about probability and how likely an event is to occur. **(7.DSP.5)**

  If there are 3 red marbles in a bag of twenty marbles the probability of choosing the red marble would be 3 out of 20. This means that you probably will pick out the red marble 3 times if you keep reaching into the bag of 20 marbles 20 times, picking one out, and then returning it.

- Use data to determine probability. **(7.DSP.6)**

- Create models that explain probability. **(7.DSP.7)**

- Create nets for surface area and solve problems using them. **(7.GM.7)**

  A surface area net is a shape like a cylinder (can) or a rectangular prism (box) unfolded so you can see and measure all of the surfaces separately.