This work is for students who completed 6th grade and are entering 7th grade.

Suggested Instructions:

The work below is organized into 8 categories:

- Ratios, Rates, & Percentages
- Arithmetic Operations
- Negative Numbers
- Properties of Numbers
- Variables and Expressions
- Equations & Inequalities
- Geometry
- Data & Statistics

Note that this is content that 6th grade students are expected to be proficient with as they move into 7th grade, as published by the state of NJ.

Sign up for a free account with with Khan Academy (www.Khanacademy.org)

Adults will have to create a parent account for students under the age of 13. Register as a 6th grade student.

The attached work is organized in the same way that Khan Academy organizes units. If a student struggles with any of the attached work, they can get extra practice through Khan Academy. Included are notes, video lessons, and short quizzes on the topics.

For example, a student does will with the Ratios, Rates, & Percentages problems that are attached, but has trouble in the Arithmetic Operations section. They can go to Khan Academy, choose the section on Arithmetic Operations, view the short note pages, watch short videos, take the short quizzes, and receive feedback. However, there would be no need to do any work under Ratios, Rates, & Percentages unless the student would like to do so.

If you would like to see what students will be learning in 7th grade, simply choose 7th Grade under the “Courses” tab in Khan Academy. While it is not an exact match of the Cherry Hill Curriculum, it is based on the same set of standards and will give you a good idea of what to expect.

For an exact description of our 7th grade curriculum, feel free to visit our curriculum page on the district website.

Ratios, Rates, & Percentages (5 problems)

1	At Jack's ice cream shop, a customer receives a free ice cream cone for every 5 ice cream cones the customer purchases. Which of the following represents the ratio of the number of ice cream cones a customer purchases to the total number of ice cream cones the customer purchases and receives for free? a. 1:5 b. 4:5 c. 1:6 d. 5:6
2	A recipe for brownies calls for 4 cups of flour to 6 cups of sugar. How many cups of sugar per cup of flour does the recipe require?
3	A factory can assemble 150 cars in 3 hours. Part A: What is the unit rate of cars assembled per hour? Part B: At this rate, how many cars can be assembled in 8 hours?

4	At a school store, each notebook has the same price and each pencil has the same price. Kate bought 5 notebooks for $4.50 and 12 pencils for $3.00 from the store. At the same store, Dave bought 4 notebooks and 5 pencils. What was the total price of the items Dave bought? a. $3.75 b. $4.85 c. $7.50 d. $10.35
5	A 5-pound bag of flour costs $4.80. For this bag of flour, what is the cost of flour per ounce? (1 pound = 16 ounces) a. $0.06 b. $0.16 c. $0.60 d. $0.96

This is the end of the Ratios, Rates, & Percentages section. Please refer to this section in Khan Academy for 6th grade math if you would like extra practice.

Continue below for the next section.

Arithmetic Operations (6 problems)

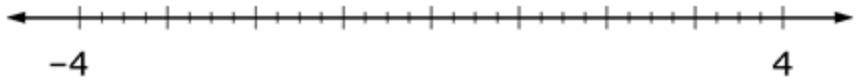
1	Shawn bought fruit last week, consisting of 2.26 pounds of bananas, 1.5 pounds of grapes, and a watermelon that weighed 6.78 pounds. What is the total weight, in pounds, of the fruit that Shawn bought last week? Show your work.
2	What is the product of 45.2 and 15 ? a. 271 b. 678 c. 2,712 d. 6,780
3	What is the quotient of 11.25 divided by 2.5 ? a. 0.405 b. 0.450 c. 4.050 d. 4.500

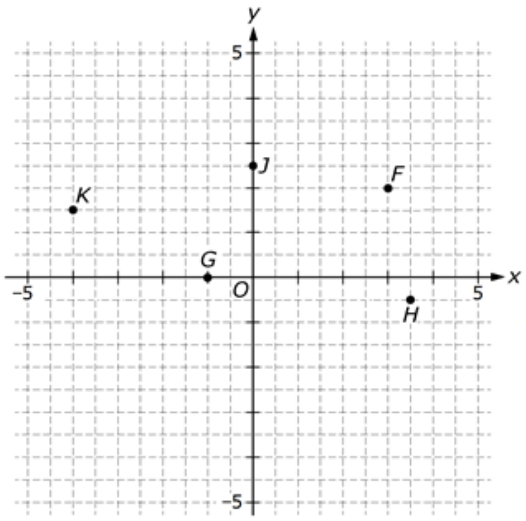
4	What is the value of $3\frac{1}{3} \div \frac{2}{3}$? Show your work.
5	A wire $4\frac{1}{2}$ feet long is being cut into smaller pieces of wire, each $1\frac{1}{4}$ feet long. What is the maximum number of smaller pieces of wire that can be cut from the original piece of wire? a. 2 b. 3 c. 4 d. 5
6	What is the value of the expression $3^3 - 2^3$? a. 21 b. 19 c. 3 d. 1

This is the end of the Arithmetic Operations section. Please refer to this section in Khan Academy for 6th grade math if you would like extra practice.

Continue below for the next section.

Negative Numbers (5 problems)

1	If an elevation 20 meters below sea level is represented by the number -20, which of the following can best be represented by the number 0 ? a. An elevation 20 meters above sea level. b. An elevation at sea level. c. An elevation 20 meters below sea level. d. An elevation 40 meters below sea level.
2	Plot each of the following six numbers on the number line below, and label each point with the corresponding number. $3,\ \frac{1}{2},\ -2,\ 0,\ -3\frac{1}{4},\ 2$ 
3	The Valdés Peninsula in the country of Argentina has an elevation of -131 feet. Death Valley in California has an elevation of -282 feet. Is the elevation of Death Valley lower than the elevation of the Valdés Peninsula? Explain your answer.

4	Five points are plotted in the coordinate plane shown. In the table below, write the coordinates that correspond to each point.  Point / Coordinates F G H J K
5	Sara plotted the locations of the trees in a park on a coordinate grid. She plotted an oak tree, which was in the middle of the park, at the origin. She plotted a maple tree, which was 10 yards away from the oak tree, at the point (10, 0). Then she plotted a pine tree at the point (-2.4, 5) and an apple tree at the point (7.8, 5). What is the distance, in yards, between the pine tree and the apple tree in the park? Each grid unit is equal to one yard. a. 2.2 b. 5.4 c. 9.4 d. 10.2

This is the end of the Negative Numbers section. Please refer to this section in Khan Academy for 6th grade math if you would like extra practice.

Continue below for the next section.

Properties of Numbers (3 Problems)

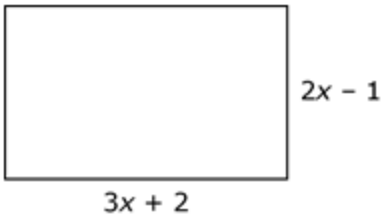
1	Karen has a red ribbon that is 18 feet long and a blue ribbon that is 12 feet long. She wants to cut both ribbons into pieces that are all the same length, and she wants to have no ribbon left over when she is done. What is the greatest length, in feet, of each piece of ribbon that she can cut? a. 3 b. 6 c. 36 d. 72
2	Find the greatest common factor of 14 and 42. Show your work.
3	Bridget's Bakery sells cupcakes in packages of 6. Perry's Pastries sells cupcakes in packages of 10. Sheldon wants to buy the same number of cupcakes from each bakery for a party, and he can only buy cupcakes in packages. Which of the following could be the number of cupcakes he buys from each bakery? a. 2 b. 16 c. 20 d. 30

This is the end of the Properties of Numbers section. Please refer to this section in Khan Academy for 6th grade math if you would like extra practice.

Continue below for the next section.

Variables and Expressions (6 Problems)

1	What is the value of the expression $5ab - 2c$ where $a = 2$, $b = 3$ and $c = 0$? a. 8 b. 28 c. 30 d. 503
2	What is the value of *F* in the formula $F = \frac{9}{5}C + 32$ when $C = 30$? a. 302 b. 86 c. 62 d. 54
3	Mike is saving money for a new bike that costs $180.00. If *m* represents the amount of money he has saved so far, which expression represents the amount of money, in dollars, he still needs to save? a. $180 + m$ b. $180 - m$ c. $180 \times m$ d. $180 \div m$

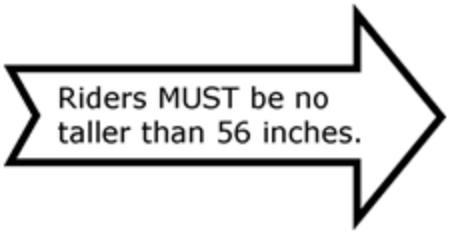
4	Which of the following is equivalent to the expression $2x + 3x + 4(x - 2)$? a. $9x - 2$ b. $9x - 8$ c. $5x - 2$ d. $5x - 8$
5	Write an expression in simplest form that represents the perimeter of the rectangle shown below. Show your work. 
6	Which of the following equations must be true? a. $k + 5(3 - 1) = 15 + k$ b. $3 + 7k = 21 + 3k$ c. $5 - 2k = 3k$ d. $5(7 + k) = 35 + 5k$

This is the end of the Variables & Expressions section. Please refer to this section in Khan Academy for 6th grade math if you would like extra practice.

Continue below for the next section.

Equations & Inequalities (5 Problems)

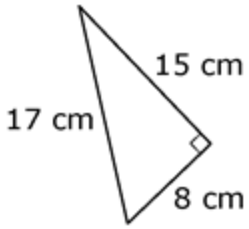
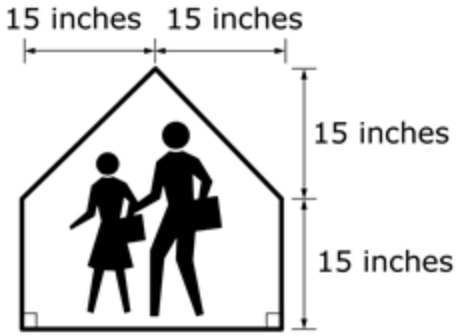
1	Solve the equation $x - 20.7 = 9.5$. Show your work.
2	Solve the equation $\frac{4}{9}y = \frac{8}{3}$. Show your work.
3	Four friends went to the movies. Each person bought a movie ticket, and the total the four friends spent on the tickets was $52. Which equation can be used to find the cost of each ticket?

	a. $4 + x = 52$ b. $x - 4 = 52$ c. $4x = 52$ d. $\frac{x}{4} = 52$
4	Which of the following gives a set of numbers that are all solutions of the inequality $x + 6 < 9$? a. $\{-10, -7, -2, -1\}$ b. $\{-6, -3, 0, 3\}$ c. $\{-5, -1, 3, 6\}$ d. $\{4, 7, 10, 16\}$
5	The sign below is posted at one of the children's rides at an amusement park. Which inequality could represent the information shown on the sign, where h represents height in inches?  a. $h > 56$ b. $h \geq 56$ c. $h < 56$ d. $h \leq 56$

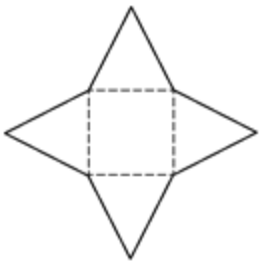
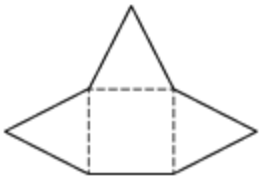
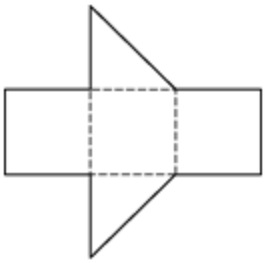
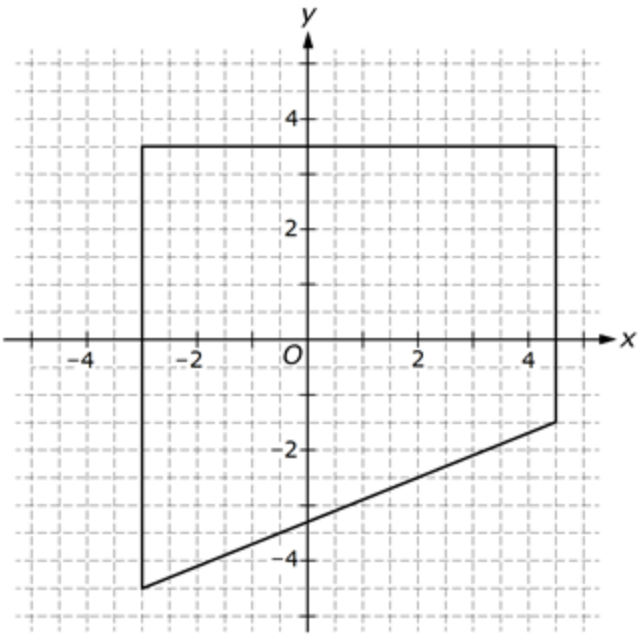
This is the end of the Equations & Inequalities section. Please refer to this section in Khan Academy for 6th grade math if you would like extra practice.

Continue below for the next section.

Geometry (5 Problems)

1	What is the area of the triangle below?  a. 40 square centimeters b. 60 square centimeters c. 68 square centimeters d. 120 square centimeters
2	What is the area of the school crossing sign represented below? 

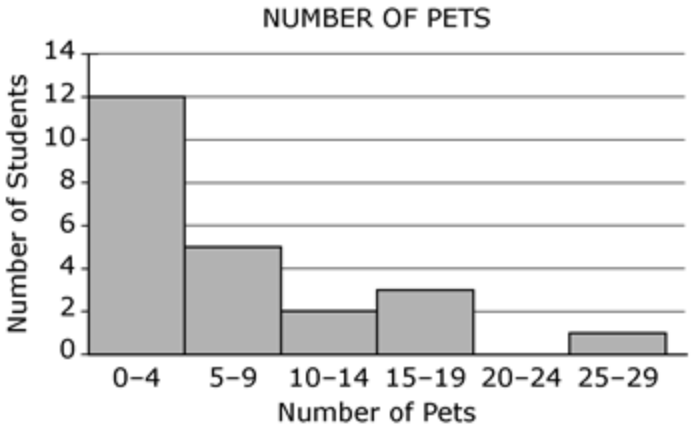
	a. 225 square inches b. 450 square inches c. 675 square inches d. 900 square inches
3	A rectangular prism is $\frac{1}{4}$ centimeter long, 4 centimeters wide, and $\frac{1}{2}$ centimeter high. What is the volume, in cubic centimeters, of the rectangular prism? a. $\frac{1}{2}$ b. $\frac{3}{4}$ c. 1 d. 2
4	Which of the following is a net for the three-dimensional figure below? 

	a.  b.  c.  d. 
5	Kylie fenced off part of her barnyard to keep her chickens safe. The part of the barnyard that she fenced off is represented on the coordinate plane below, where the units are in feet. What is the area, in square feet, of the part of the barnyard that she fenced off? Explain how you found your answer. 

This is the end of the Geometry section. Please refer to this section in Khan Academy for 6th grade math if you would like extra practice.

Continue below for the next section.

Data & Statistics (3 Problems)

1	All the students in Ms. Carter's class reported the number of pets they have at home. Ms. Carter created the histogram shown based on the data she collected.  **Part A:** How many students are in Ms. Carter's class?

	Part B: On the histogram, what is the meaning of the tallest bar, in terms of the situation? **Part C:** On the histogram, why is there an interval with no bar on it?
2	The table below shows the total park acres per 1,000 residents for 6 cities in 2010. Total Park Acres per 1,000 Residents 0.8 | 1.0 | 2.7 | 2.8 | 3.1 | 13.3 **Part A:** What is the mean of this data set? **Part B:** What is the median of this data set?
3	The table below shows the bowling scores of 11 students from Baruch Middle School last Wednesday.

Bowling Scores

40	64	66	67	67	68	69	70	71	72	78

Part A: What is the range of this data set?

Part B: What is the interquartile range of this data set?

This is the end of the Data & Statistics section. Please refer to this section in Khan Academy for 6th grade math if you would like extra practice.

This is the end of the 6th grade content