

## Grade 6 Answer Key 2016

Answers will vary for many of the activities depending on the choices students make. Here are the answers for activities with specific solutions.

### July 1

Each friend will have  $\frac{2}{3}$  of a sandwich.

### July 4

Example:

$$(5 \times 5) + (50 - 25)$$

Each example does not need to include all of the operation and fraction and decimal. Include fractions and decimals in some of your examples.

### July 5

One solution:

$$(5+3(2+4))+(5+3(2+4)).$$

### July 7

$\frac{1}{4}$  of the class went to the evening session.

### July 12

The area of the rectangle would be  $5.5\text{cm} \times 11\text{cm} = 60.5 \text{ cm squared}$ .

### July 13

One solution:

$$2 \frac{2}{10} + 3 \frac{2}{5} = 5 \frac{3}{5}$$

### July 14

The wingspan of the California Condor is 38 feet.

### July 15

Each person will have  $\frac{7}{8}$  of a pizza.

### July 18

The baker will use more than 5 sacks of flour.

### July 19

$$6 + (6 \div 6) \times (6 - 6) = 0$$

---

### July 20

Example for first step: Player 1 draws a 9, 4, and 3 and writes it on her paper as

4.93 or 4.39.

Example for second step: Player 1 draws a 6, 2, and 7. She writes it on her paper as 62.7 or 26.7

Example for third step: Player 1 adds  $4.93 + 62.70 = 67.63$

Continue to add the number they make to their last score. Play until one player reaches 300.

### July 21

The area of the pen for the puppy would be  $6 \frac{1}{4}$  meters x 4 meters = 25.6 meters squared.

### July 22

Example:

$$\frac{2}{3} \times \frac{3}{2} = 1$$

### July 25

Janet had a rope that was 2 meters long. She cut it into pieces that were  $\frac{1}{3}$  of a meter long. How many pieces of rope did she cut?

$2 \div \frac{1}{3}$  Janet had a rope that was 2 meters long. She cut it into pieces that were  $\frac{1}{3}$  of a meter long. How many pieces of rope did she cut?



Janet was able to cut 6 pieces of rope. To solve this problem I gave represented the 2 meter rope with green. The red represented  $\frac{1}{3}$  meter. I needed 6 red rods to match the length of two green rods.  $2 \div \frac{1}{3} = 6$  or  $6 \times \frac{1}{3} = 2$

### July 26

I went to the store and bought a lollipop for 25 cents and gave the clerk a dollar. My change would be .75 of a dollar.

### July 28

Parentheses may be used to group calculations and to indicate the order in which calculations are to be performed. Players must write out their solutions.

Sample hand: Cards: 1, 3, 7, 1, 8 Target Card: 1

One possible solution:  $[(3 - 1) + 7] - (8 \div 1) = 1$

The first player to reach a solution says "Target!" and then explains his/her

solution. If the solution is correct, the player receives 1 point for that round. If the player cannot explain the solution or the solution is not correct, the player receives a -1 for that round.

After 10 rounds the winner is the player with the most points.

### July 29

Order of operations: The rules of which calculation comes first in an expression.

Do everything inside parentheses first, ( )

Then do exponents, like  $x^2$

Then do multiplication and division from left to right

Lastly do addition and subtraction from left to right



Use the word PEMDAS or the sentence "Please Excuse My Dear Aunt Sally" to remember the order of operations.

Examples:

$$1 = (4 \times 4) \div (4 \times 4)$$

$$1 = 44 \div 44$$

---

### August 2

You would receive \$8.15 in change from \$20.00.

### August 3

222

---

### August 8

There are 8 pints in a gallon. So in 3 gallons there are 24 pints so the pitcher can not hold 25 pints.

### August 12

Suzie is baking some cookies. The recipe calls for  $\frac{2}{3}$  cup of sugar. She would like to cut the recipe in half. How much sugar will she need?

### August 15

Twelve children will get pizza.

### August 16

Example:

$$1.2 - 0.7 = 0.5$$

$$1.2 + 0.7 = 1.9$$

$$1.9 > 0.5$$

### **August 19**

It would take 10,000 days to spend 1,000,000 dollars. It would take over 28 years.

### **August 23**

Answers 49, 44, 39, 34, 29, 24, 19, 14, and 9.

### **August 24**

Before multiplying the first 2, complete the operations inside the parentheses

using order of operations:  $2 \times (5 + 3 \times 2 + 4) = 2 \times (5 + 6 + 4) = 2 \times 15 = 30$

You can not remove the parenthesis and get the same value.

### **August 25**

The product of their ages in 25 years will be 1,406 ( $37 \times 38$ ).

### **August 28**

Since 60 is twice 30, the product  $60 \times 225$  is twice the product  $30 \times 225$ . We can write this as an equation:

$$60 \times 225 = (2 \times 30) \times 225 = 2 \times (30 \times 225).$$

### **August 29**

The 8 in the ten thousands place is a thousand times greater than the 8 in the tens place.  $80 \times 1,000 = 80,000$ .

---

### **August 30**

The first box is 2 centimeters high, 3 centimeters wide, and 5 centimeters long so it has volume

$2\text{cm} \times 3\text{cm} \times 5\text{cm} = 30$  cubic centimeters and it holds 40 grams of clay. The second box is 4 centimeters high, 9 centimeters wide, and 5 centimeters long so its volume is  $4\text{cm} \times 9\text{cm} \times 5\text{cm} = 180$  cubic centimeters.

Since the volume of the second box is

$180 \div 30 = 6$  times bigger, it can hold 6 times as much clay. So the second box can hold  $6 \times 40 = 240$  grams of clay.

---

