

# HCS Math Spiral 2017-18

## Learning Period 4

## Answer Key

February 1 – March 29 (Spring Break begins: March 30)

### 2/1

- 1.) If  $k = 3$ , what is the value of  $7k - 2$ ? **19**
- 2.) If  $n = 31$ , what is the value of  $6 - n$ ? **-25**
- 3.) If  $n = 4$ , what is the value of  $6 \times n - 3$ ? **21**

### 2/2

- 1.) If  $z = 3$ , what is the value of  $5 \times (6 - z)$ ? **15**
- 2.) If  $s = 4$ , what is the value of  $s(9 - 4)$ ? **20**
- 3.) If  $x = -2$ , what is the value of  $x - 5$ ? **-7**

**2/5** Convert the mixed number into an improper fraction.

- 1.)  $3\frac{1}{2} = \frac{7}{2}$
- 2.)  $2\frac{1}{4} = \frac{9}{4}$
- 3.)  $1\frac{2}{5} = \frac{7}{5}$

**2/6** Convert the improper fraction into a mixed number.

- 1.)  $\frac{11}{3} = 3\frac{2}{3}$
- 2.)  $\frac{9}{5} = 1\frac{4}{5}$
- 3.)  $\frac{14}{7} = 2$

**2/7** Solve.

- 1.)  $-3 + m$ , when  $m = -4$  **-7**
- 2.)  $2.67 + p$ , when  $p = -1.2$  **1.47**
- 3.)  $m + 12.2$ , when  $m = -10.5$  **1.7**

**2/8** Solve.

- 1.)  $2\frac{1}{3} + 4\frac{1}{2} = 6\frac{5}{6}$
- 2.)  $1\frac{1}{3} + \frac{2}{3} = 2$
- 3.)  $2\frac{2}{5} + 1\frac{1}{10} = 3\frac{1}{2}$

### 2/9

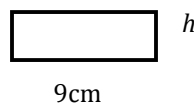
1.) Sally caught twice as many fish as her dad. If her dad caught  $f$  fish, write an expression to show how many fish sally caught?  **$2f$**

2.) Ann has 54 crayons. This number is 18 more crayons than Bill has. Write an equation that can be used to find  $b$ , the number of crayons that Bill has.  **$b + 18 = 54$**

### 2/12

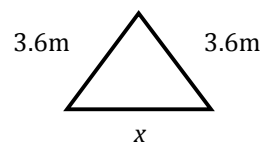
1.) What is the value of  $h$  if the area is  $27\text{cm}^2$ ?

**$h = 3\text{cm}$**



2.) Find the perimeter of the triangle if  $x = 4.91\text{m}$ .

**$p = 12.11\text{m}$**



**2/13**

- 1.) Evaluate  $y \times y$  when  $y = 10$ . **100**
- 2.) Find the value of  $x$  if  $x + x = 28$   **$x = 14$**
- 3.) Find the value of  $m$  if  $3m = 39$   **$m = 13$**

**2/14**

- 1.) Find the value of  $s$  if  $s + 5 = -10$ .  **$s = -15$**
- 2.) Find the value of  $r$  if  $2 + r = 1$ .  **$r = -1$**
- 3.) Find the value of  $m$  if  $6m = 6$ .  **$m = 1$**

**2/15** Solve.

$$1.) \frac{1}{2} + m = \frac{3}{4}$$

$$m = \frac{1}{4}$$

$$2.) 6x + 1 = 13$$

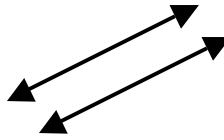
$$x = 2$$

$$3.) -3 + m = 15$$

$$m = 18$$

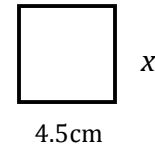
**2/20**

- 1.) Sketch a pair of parallel lines.



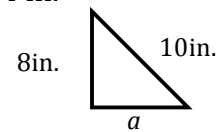
- 2.) Find the missing measurement,  $x$ , if the perimeter = 28.2 cm.

$$x = 9.6 \text{ cm}$$



- 3.) Find the missing measurement,  $a$ , if the perimeter = 24 in.

$$a = 6 \text{ in}$$

**2/21** Solve each equation for the variable.

$$1.) m - 2 = -4, \mathbf{m = -2}$$

$$2.) n \div 5 = 9, \mathbf{n = 45}$$

$$3.) 6y = 6, \mathbf{y = 1}$$

**2/22** Solve.

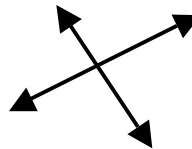
$$1.) -41 - (-3) = \mathbf{-38}$$

$$2.) 5 + (-20) = \mathbf{-15}$$

$$3.) -13 + 13 = \mathbf{0}$$

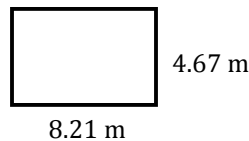
**2/23**

- 1.) Draw a pair of perpendicular lines.



- 2.) Find the area of the rectangle.

$$a = 38.3407 \text{ m}^2$$



$$3.) \text{Solve } \frac{9}{10} - \frac{2}{7} = \frac{43}{70}$$

2/26 Solve for the variable.

1.)  $16x = 8$

$$x = \frac{1}{2}$$

2.)  $\frac{m}{3} = 2$

$$m = 6$$

3.)  $6x = 2$

$$x = \frac{1}{3}$$

2/27

1.)  $-5 + m = -5$      $m = 0$

2.) Create your own algebraic equation and ask your parent to solve.

$$3x + 1 = 7 \text{ or something similar}$$

3.) What is the opposite of -8?  $8$

2/28

1.)  $\frac{-2}{7} + \left(\frac{-3}{7}\right) = \frac{-5}{7}$

2.) When you add two negative numbers will you always get a negative answer?

Explain.

**Yes (and explanation)**

3.)  $32 + (-31) = 1$

3/1

1.) Explain how you find the area of a rectangle. **Multiply base x height**

2.) Can you have a negative perimeter or area? Explain. **No, you can't measure around a figure with negative measurements.**

3/2 Solve.

1.)  $-4.67 + (-3.1) = 7.77$

2.)  $13.1 - 22 = -8.9$

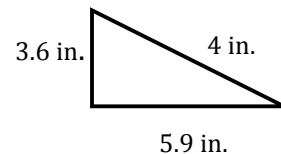
3.) If you add two positive numbers will you always get a positive answer? Explain.

**Yes (and explanation)**

3/5 Solve.

1.)  $\frac{4}{9} + \frac{1}{3} = \frac{7}{9}$

2.) Find the perimeter. **= 13.5 in**



3.)  $x + \frac{1}{4} = \frac{5}{12}$      $x = \frac{1}{6}$

3/6

1.) Draw an equilateral triangle. **all 3 sides the same length**

2.) Find the perimeter of this equilateral triangle.

$$P = 7.8 \text{ cm}$$



3/7 Solve.

1.)  $m + (-6) = 10$

$m = 16$

2.)  $3x = 21$

$x = 7$

3.)  $-14 - (-4) = -10$

3/8 Solve.

1.)  $15 \times \frac{1}{5} = 3$

2.)  $2\frac{2}{3} \times 1\frac{1}{2} = 4$

3.)  $\frac{n}{6} \times 18 = 12$   $n = 4$

3/9

1.)  $0.321 - .029 = 0.292$

2.)  $4.5 + 0.09 = 4.59$

3.)  $8.01 - 3.13 = 4.88$

3/12

1.)  $\frac{2}{3} \div n = 1$   
 $n = \frac{2}{3}$

2.)  $\frac{2}{3} \div t = \frac{1}{6}$   
 $t = 4$

3.)  $b \div \frac{1}{4} = \frac{8}{25}$   
 $b = \frac{2}{25}$

3/13 Solve.

1.)  $-3 - 5 = -8$  2.) Whole numbers and their opposites are called Integers.

3.)  $\frac{1}{2} + 3\frac{1}{4} = 3\frac{3}{4}$

3/14 Solve.

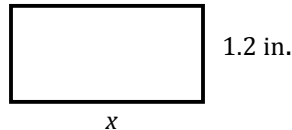
1.)  $-3 + (-12) = -15$

2.)  $-15 + 8 = -7$

3.)  $4 - 19 = -15$

3/15

1.) Find the value of  $x$  if the  $A=3.9 \text{ in}^2$   
 $x = 3.25 \text{ in.}$



2.) Describe a real-life situation that can be represented by  $-12$ .

The temperature is 12 degrees below zero. I owe my friend \$12.

3.) Compare  $-7 < -4$

3/16 Solve.

1.)  $5 + (-7) + (-17) = -19$

2.)  $-31 + (-10) = -41$

3.)  $0 + (-23) = -23$

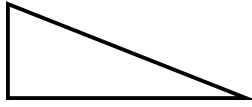
3/19

1.) The sum of two numbers is 20. Their product is 96. What are the two numbers?  
12, 8

2.) The sum of three numbers is 22. Their product is 320. What are the three numbers?  
4, 8, 10

**3/20**

1.) What kind of triangle is ABC?  
Equilateral, Isosceles or *Scalene*?



2.) The perimeter of a sandbox is 32ft. The width is 6ft., what is the length?

$l = 10\text{ft.}$

**3/21** Solve.

1.)  $-6 \times 3 = -1$

2.)  $-3 \times (-3) \times (-1) = -9$

3.)  $8 \times (-8) = -64$

**3/22**

1.)  $b - 4.5 = 14$

$b = 18.5$

2.)  $4\frac{1}{2} - 2\frac{5}{6}$   
 $= 1\frac{2}{3}$

3.)  $4\frac{1}{2} \times \frac{1}{4}$   
 $= 1\frac{1}{8}$

**3/23** Solve for the variable.

1.)  $t + (-4) = -4$   
 $t = 0$

2.)  $p - 3 = -5$   
 $p = -2$

3.)  $38 - x = 0$   
 $x = 38$

**3/26** Solve for the variable.

1.)  $\frac{a}{6} = 2.5$   
 $a = 15$

2.)  $4y = 48$   
 $y = 12$

3.)  $4z + 5 = 9$   
 $z = 1$

**3/27** Find the product.

1.)  $2(-10) = -20$

2.)  $(-4)(-7) = 28$

3.)  $(9)(3) = 27$

**3/28** Solve.

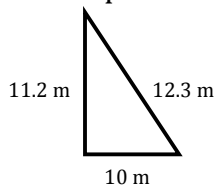
1.)  $156.29 + 26.213$   
**182.503**

2.)  $49.2 - 26.8$   
**22.4**

3.)  $12 \times 79$   
**948**

**3/29**

1.) Find the perimeter: **33.5m**



2.)  $6.291$   
 $- 4.320$   
**1.971**

3.) Order from least to greatest:  
2, -3, 5, 0, -9  
**-9, -3, 0, 2, 5**