

HCS Math Spiral 2017-18 **KEY**

Learning Period 3

December 1 – January 31 (Winter Break: Dec. 25 – Jan. 5)

12/1 Find the product.

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

2.) $15 \times \frac{2}{5} = 6$

3.) $15 \times \frac{3}{5} = 9$

12/4 Find the product.

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

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

3.) $22 \times \frac{1}{2} = 11$

12/5 Find the product.

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

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

3.) $5 \times \frac{1}{10} = \frac{1}{2}$

12/6 Find the product.

1.) $\frac{1}{4} \times \frac{3}{4} = \frac{3}{16}$

2.) $\frac{2}{9}$ of $\frac{3}{8} = \frac{1}{12}$

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

12/7

1.) Sam spends $\frac{2}{3}$ of an hour each day in his garden. When he is in his garden, he

spends $\frac{1}{2}$ the time watering the plants. How much time does Sam spend watering

the plants each day? **Sam spends $\frac{1}{3}$ of an hour everyday watering his plants;**

therefore he spends 20 minutes a day watering.

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

n = 1

3.) $\frac{2}{3} \times \frac{n}{5} = \frac{8}{15}$

n = 4

12/8

1.) One fourth of Sue's roses are yellow. She gives one third of the yellow roses to Judy. What fraction of her roses does she give to Judy? **Sue gives Judy one twelfth of her roses.**

2.) Neil has used $\frac{2}{3}$ of the 51 pieces in his model kit. Victor has used $\frac{2}{3}$ of the 72 pieces in his kit. Who has used more pieces? **Victor has used more pieces.**

12/11 Solve.

1.) $\frac{4}{7} + \frac{1}{3} = \frac{19}{21}$

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

3.) $\frac{3}{10}$ of $\frac{5}{9} = \frac{1}{6}$

12/12

- 1.) Find the reciprocal of $\frac{5}{6} = \frac{6}{5}$ or $1\frac{1}{5}$ 2.) $\frac{4}{9} \div \frac{1}{3} = \frac{4}{3}$ or $1\frac{1}{3}$ 3.) $\frac{1}{2} \div \frac{1}{2} = 1$

12/13

- 1.) Find the reciprocal of $\frac{13}{3} = \frac{3}{13}$ 2.) $\frac{3}{4} \div \frac{3}{8} = 2$
- 3.) Does multiplication or division make this statement true? $\frac{3}{4} \square \frac{5}{12} = 1\frac{4}{5}$

Division**12/14**

- 1.) Find the reciprocal of 5. $= \frac{1}{5}$ 2.) Find the reciprocal of $1\frac{1}{4} = \frac{4}{5}$
- 3.) Find the quotient of $\frac{5}{6} \div \frac{1}{3} = \frac{5}{2}$ or $2\frac{1}{2}$

12/15

- 1.) If you divide a fraction by a fraction will you always get a fraction as your answer? Explain. **No**

- 2.) Solve. $\frac{4}{9} \times \frac{1}{2} = \frac{2}{9}$ 3.) Solve. $\frac{7}{8} \div \frac{2}{8} = \frac{7}{2}$ or $3\frac{1}{2}$

12/18 Find the opposite of the following numbers.

- 1.) 20 **-20** 2.) -5 **5** 3.) $-\frac{1}{3}$ **$\frac{1}{3}$**

12/19 Compare each set of numbers with >, <, or =

- 1.) 2 > -4 2.) -6 < 6 3.) -3 > -5

12/20 Order each set of numbers from least to greatest.

- 1.) 2, -3, 0 **-3, 0, 2** 2.) -7, -1, 5 **-7, -1, 5** 3.) -2, 3, -4 **-4, -2, 3**

12/21 Solve.

- 1.) $2.67 \times 4.9 = 13.083$ 2.) $-4 + (-3) = -7$ 3.) $-9 + 2 = -7$

12/22

- 1.) Solve. $5 + (-3) = 2$ 2.) Order from least to greatest: 3, 0, -5, 1, -1
-5, -1, 0, 1, 3
- 3.) Solve. $-7 + (-3) = -10$

1/9 Solve.

- 1.) $9 + (-9) = 0$ 2.) $0 + (-3) = -3$ 3.) $22 + (-20) = 2$

1/10

1.) Will the sum of $-6 + 5$ be positive or negative, how do you know?

It will be negative because the absolute value of the negative 6 is higher than 5 so we keep the sign of the negative 6.

2.) $-10 + (-2) = -12$

3.) $5 + 4 = 9$

1/11 Solve.

1.) $\frac{1}{2} + \frac{1}{8} = \frac{5}{8}$

2.) $-5 - 2 = -7$

3.) $-5 + (-2) = -7$

1/12 Solve.

1.) $-6 - (-3) = -3$

2.) $-6 + 3 = -3$

3.) $9 - (-3) = 12$

1/16 Solve.

1.) $\frac{4}{9} \times \frac{3}{8} = \frac{1}{6}$

2.) $4 - 5 = -1$

3.) $-15 - 10 = -25$

1/17 Solve.

1.) $-8 - (-8) = 0$

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

3.) Compare using $<$, $>$ or $=$. $(2 - 3) < (-1 + 1)$

1/18 Solve.

1.) $3 - (-10) = 13$

2.) $-12 + 6 = -6$

3.) $-3 + (-2) = -5$

1/19

1.) $-1 + (-2) = -3$

2.) Order from least to greatest. $5, -7, 9, -8$
 $-8, -7, 5, 9$

3.) Will the sum of $-9 + 12$ be positive or negative, how do you know?

It will be positive because 12 is large than the absolute value of -9 therefore we will keep the sign of the positive 12.

1/22

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

2.) Compare using $<$, $>$, or $=$.

3.) $-4 - (-4) = 0$

$-20 > -21$

1/23 Solve.

1.) $12 \times \frac{1}{2} = 6$

2.) $12 \times 0.5 = 6$

3.) $12 \times 50\% = 6$

1/24

1.) Write $\frac{11}{2}$ as a mixed number. $5\frac{1}{2}$

2.) Write $4\frac{3}{8}$ as an improper fraction. $\frac{35}{8}$

3.) $3 + (-8) = -5$

1/25 Evaluate the algebraic expression.

1.) $t + 4$, when $t = 5$
9

2.) $n - 6$, when $n = 10.8$
4.8

3.) $b - 4.5$, when $b = 30$
25.5

1/26 Evaluate the algebraic expression.

1.) $\frac{a}{4}$ when $a = 24$
6

2.) $9 \times m$, when $m = 3$
27

3.) The area of a rectangle is $24in.^2$, the length is $6in.$, what is the height of the rectangle?
The height of the rectangle is 4 inches.

1/29 Find the value of the variable.

1.) $x + 9 = 14$, $x = 5$

2.) $5 \times y = 30$, $y = 6$

3.) $\frac{x}{6} = 6$, $x = 36$

1/30 Solve each equation for the variable.

1.) $e + 6 = 17$, $e = 11$

2.) $21 = g + 4$, $g = 17$

3.) $m - 15 = 3.6$, $m = 18.6$

1/31

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

2.) What is the inverse operation of multiplication?

Division

3.) What is the inverse operation of addition? **Subtraction**