Math Virtual Learning

Geometry/Honors Geometry
Proportions

April 13, 2020

Geometry/Honors Geometry
Lesson: April 13, 2020

Objective/Learning Target:
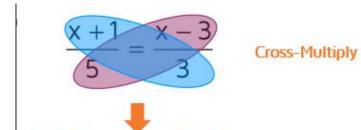Students will solve problems involving proportions.

Warm-Up:

Watch Video: Review Solving Equations

Watch Video: Solving Proportions

Examples:

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

$$5x = 180$$

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

$$\div 5 \quad \div 5$$

$$x = 36$$

Examples:

$$\frac{x+1}{5} = \frac{x-3}{3}$$ Cross–Multiply

$3(x + 1) = 5(x - 3)$ Set the cross-products equal to each other.

$3x + 3 = 5x - 15$ Distribute the 3 and the 5.

$-3x \quad +15 \quad -3x \quad +15$ Get all the variables on one side and all the constants on the other.

$$\frac{18}{2} = \frac{2x}{2}$$ Divide both sides by 2 to get x by itself.

$x = 9$

Practice:

1) $\dfrac{8}{9} = \dfrac{5z + 28}{29}$

2) $\dfrac{5}{7} = \dfrac{f + 6}{3}$

3) $\dfrac{n}{4} = \dfrac{1}{16}$

4) $\dfrac{26}{6} = \dfrac{5}{r}$

Answer Key:
Once you have completed the problems, check your answers here.

1) $\dfrac{8}{9} = \dfrac{5z + 28}{29}$

$z = -0.44$

2) $\dfrac{5}{7} = \dfrac{f + 6}{3}$

$f = -3.86$

3) $\dfrac{n}{4} = \dfrac{1}{16}$

$n = 0.25$

4) $\dfrac{26}{6} = \dfrac{5}{r}$

$r = 1.15$

Additional Practice:

[Extra Practice with Answers](#)

[Interactive Practice](#)