

EQUIVALENT RATIOS

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- Ratios that are equivalent can be simplified to the same _____, just like an equivalent fraction.

- Ex: 4:5, 8:10, 12:15 $\frac{1}{6}, \frac{2}{12}, \frac{3}{18}$

SCALE FACTOR

- The _____ or _____ in which both numbers in a ratio are multiplied by to form an equivalent ratio.

$$\frac{2}{5} \cdot \boxed{} = \frac{8}{20}$$

$$\frac{2}{5} = \frac{8}{20}$$

Create two ratios that are equivalent to the ratios below.

1. 3:11	2. 18:12	3. 6:10
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Determine if the ratios below are equivalent. If so, determine the multiplier or scale factor.

4. $\frac{2}{5}$ and $\frac{8}{20}$ _____ _____	5. $\frac{12}{4}$ and $\frac{6}{3}$ _____ _____	6. $\frac{8}{6}$ and $\frac{20}{15}$ _____ _____
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Audrey and Megan are decorating for a birthday party. Audrey hangs 4 streamers in the same amount of time that Megan hangs 6. If Audrey hangs 12 streamers, then how many streamers can Megan hang? Determine the scale factor.

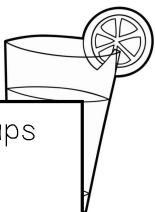
AUDREY
4 STREAMERS

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MEGAN
6 STREAMERS

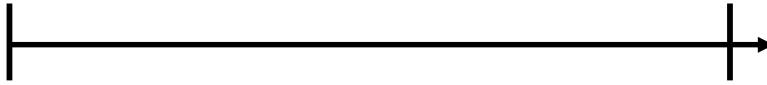
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_____ = _____

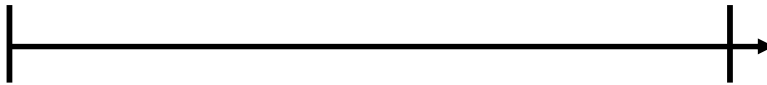


7. Sally's Summer Punch recipe is a combination of lemonade and fruit punch. Sally uses 3 cups of lemonade for every 4 cups of fruit punch. In order to make a batch for the Fourth of July party, Sally uses 21 cups of lemonade. How many cups of fruit punch will Sally use?

LEMONADE
3 CUPS



FRUIT PUNCH
4 CUPS



Use your understanding of equivalent ratios to answer the questions below.

8. Use the pattern below to determine how many gray squares there would be if there are 15 white squares.



9. Mrs. Malone earns two hours of paid vacation for every 9 days she works. How many hours of paid vacation will Mrs. Malone earn after working 81 days?

10. A wrapping paper fundraiser sells rolls of gold and red wrapping paper. The ratio of gold rolls sold to red rolls sold is 5:8. If the school sells 78 rolls, then how many were gold?

11. There are a total of 30 puzzle pieces. Three out of 5 are red, the remaining are black. How many puzzle pieces are black?

12. Jamal says that 18:12 and 3:4 are not equivalent ratios. Margie says they are equivalent ratios. Who is correct? Justify your solution.

Summarize today's lesson:

EQUIVALENT RATIOS

Determine if the ratios below are equivalent or not. Justify your reasoning.

<p>1. 4:18 and 2:12</p> <p>_____</p> <p>_____</p>	<p>2. 5:20 and 15:60</p> <p>_____</p> <p>_____</p>	<p>3. 17:3 and 68:12</p> <p>_____</p> <p>_____</p>
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Use your understanding of equivalent ratios to answer the questions below.

<p>4. A toy shop sells baby rattles in green and yellow. For every two green rattles the toy shop sells, it sells 7 yellow rattles. If the company sells 108 rattles, how many yellow rattles did they sell?</p>	<p>5. A French toast recipe uses 2 eggs to make 14 slices of French toast. Brenda wants to make 98 slices of French toast to feed her family and friends. How many eggs will Brenda need to make 98 slices?</p>
<p>6. Olumide plays the piano and guitar. For every 5 minutes of piano practice, he spends 8 minutes practicing guitar. How many minutes will Olumide practice piano if he spends 64 minutes practicing guitar?</p>	<p>7. At Doggy Daycare, there are 3 trainers assigned for every 12 dogs. There are 72 dogs enrolled for the daycare on Tuesday. Determine the number of trainers needed.</p>

8. Maia was baking cupcakes for a party. She mixed 4 drops of red food coloring for every 6 drops of yellow food coloring to dye her icing orange. Circle the ratios of food coloring drops that would create the same orange color and justify your choices.

2 red to 3 yellow

40 yellow to 100 red

44 red to 66 yellow

24 red to 26 yellow

28 red to 42 yellow

