

7.1-7.4 REVIEW

What are ratios?

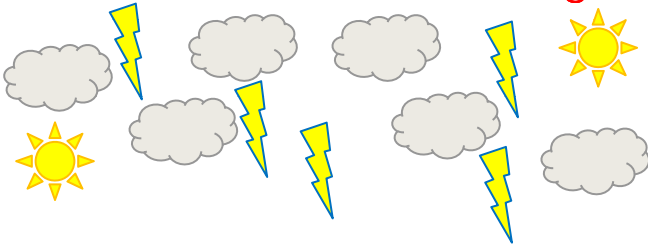
A ratio is a comparison between two or more things.



What is the ratio of stars to moons? Write this 3 different ways.

IN RATIOS, YOU ARE TO LEAVE ANY RATIOS "IMPROPER".

Ratios with more than 2 things



What is the ratio of clouds, lightning bolts, and suns?

Simplifying Ratios

Ratios can act like fractions because they can be simplified like fractions.



To simplify a ratio, write it like a fraction and then simplify.

Simplifying Ratios

1) $18:63$

2) $15x:45x$

3) $\frac{8c^2d}{12cd^2}$

Converting Units Before Simplifying

When you have ratios that can be converted from one to the other...**CONVERT AND THEN SIMPLIFY!**

4) $2\text{ hours} : 10\text{ min}$

5) $8\text{ in} : 4\text{ ft}$

Word Problems

- 6) Jenna plants alfalfa and wheat on 160 acres on her farm. If the ratio of acres of alfalfa to acres of wheat is 3:5, how many acres of each crop are planted?

Word Problems

- 7) The lengths of the sides of a triangle are in the ratio 3:4:5. The perimeter of the triangle is 24 inches. Find the lengths of each side.

$$3x + 4x + 5x = 24$$

Using Cross Products to Solve Proportions

$$8) \frac{3x+1}{5} = \frac{x}{2}$$

Using Cross Products to Solve Proportions

$$9) \frac{x-5}{12} = \frac{x+2}{5}$$

Writing Proportions

Example 10

Jim bought 8 tacos for \$4. Unfortunately, he was still hungry. So, he bought 6 more tacos. How much did he pay for the 6 tacos?

Solve

$$11) \frac{2a}{5} - \frac{a}{4} = \frac{9}{20}$$

Solve

12)

$$\frac{3}{x-1} + \frac{2}{x} = 4$$