January 24, 2012

Get out your homework...

RED book page 58 #1-11 all

1/24 - Testing and solving proportions

What is a ratio?

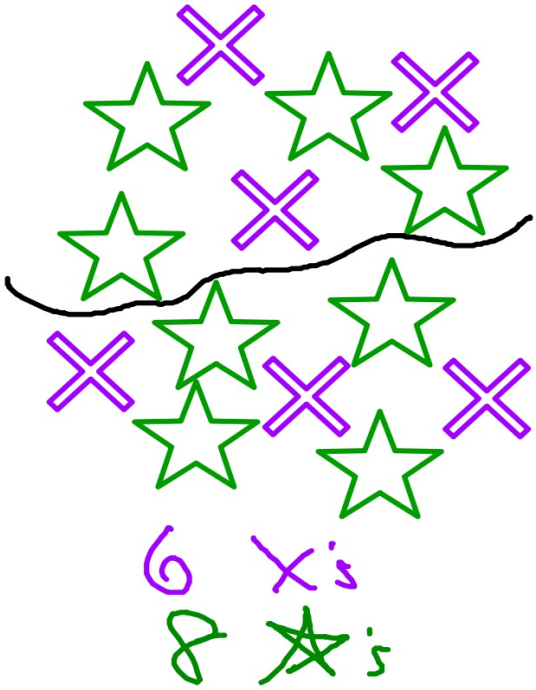
comparison of 2 numbers

How do you write it?

$\frac{6}{8} = \frac{3}{4}$

6 to 8

6 : 8



If two ratios can both measure the same same things, they are called **equivalent**.

$\frac{3}{4}$ *and* $\frac{6}{8}$ 

$\frac{2}{3}$ *and* ?? $\frac{4}{6}, \frac{6}{9}, \frac{8}{12}, \frac{20}{30}, \ldots$

Are the given ratios equivalent?

$\frac{5 \cdot 4}{8 \cdot 4}$ *and* $\frac{20}{32}$

Yes, you multiply top & bottom by the same #

$\frac{4 \cdot 2}{5 \cdot 3}$ *and* $\frac{8}{15}$

No, the #'s you times by are diffirent

$\frac{3 \cdot ?}{2 \cdot 3}$ *and* $\frac{4}{6}$

No

What does the variable have to equal in order for the ratios to be equivalent?

$\frac{3}{8} \cdot 4 \quad and \quad \frac{x}{32}$

$12 = x$

or

$x = 12$

$\frac{4}{b} \cdot 2 \quad and \quad \frac{8}{20}$

$10 = b$

or

$b = 10$

$\frac{3}{2} \cdot 3 \quad and \quad \frac{9}{n}$

$n = 6$

or

$6 = n$

Solve each proportion...

$$\frac{3}{8}\cdot\frac{3}{3}=\frac{x}{24}$$

$9 = x$

"shortcut"

$$\frac{4}{b}=\frac{5}{6}$$

Cross-multiply

$$\frac{5b}{5}=\frac{24}{5}$$

$$b = 4\frac{4}{5}$$

No decimal answers

$$\frac{3}{2}=\frac{10}{n}$$

$$\frac{3n}{3}=\frac{20}{3}$$

$$n = 6\frac{2}{3}$$

$$\frac{c}{6}=\frac{8}{9}$$

$$\frac{9c}{9}=\frac{48}{9}$$

$$c = 5\frac{3}{9}$$

$$c = 5\frac{1}{3}$$

Homework:

GREEN Worksheet 1

1-16 all

due Wednesday