Key

NAME DATE PERIOD

Unit 6, Lesson 5: A New Way to Interpret a over b

1. Select **all** the expressions that equal $\frac{3.15}{0.45}$.

A. $(3.15) \cdot (0.45)$ No
B. $(3.15) \div (0.45)$ yes
C. $(3.15) \cdot \frac{1}{0.45}$ yes
D. $(3.15) \div \frac{45}{100}$
E. $(3.15) \cdot \frac{100}{45}$ No
F. $\frac{0.45}{3.15}$ No

$\frac{3.15}{1} \times \frac{1}{.45} = \frac{3.15}{.45}$

2. Which expressions are solutions to the equation $\frac{3}{4}x = 15$? Select **all** that apply.

opposite of multiply is divide looking for

A. $\frac{15}{\frac{3}{4}}$ Yes
B. $\frac{15}{\frac{4}{3}}$ No
C. $\frac{4}{3} \cdot 15$ Yes
D. $\frac{3}{4} \cdot 15$ No
E. $15 \div \frac{3}{4}$ Yes

$\frac{15}{\frac{3}{4}}$ → divide

$15 \div \frac{3}{4}$ → flip and multiply

$\frac{15}{1} \times \frac{4}{3}$

3. Solve each equation.

a. $4x = 32$ $\frac{32}{4} = 8$

b. $4 = 32x$ $\frac{4}{32} = \frac{1}{8}$

c. $10x = 26$ $\frac{26}{10} = 2\frac{6}{10} = 2.6$

d. $26 = 100x$ $\frac{26}{100} = .26$

4. For each equation, write a story problem represented by the equation. For each equation, state what quantity x represents. If you get stuck, draw a diagram.

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$\frac{3}{4} + x = 2$ ← Need Total Flour

how much more flour

Subtract ↓

$2 - \frac{3}{4} = 1\frac{1}{4}$ more cups

$1.5x = 6$ ← how many batches can I make?

each batch cookies needs 1.5 C flour

Flour I have

opposite x is ÷

$6 \div 1.5 = x$

$4 = x$

batches

5. Write as many mathematical expressions or equations as you can about the image. Include a fraction, a decimal number, or a percentage in each.

Examples:

$250,000 - 110,000 = x$

how much more to goal

$\frac{110,000}{250,000} = .44$ or 44% to goal

(from Unit 3, Lesson 13)

6. In a lilac paint mixture, 40% of the mixture is white paint, 20% is blue, and the rest is red. There are 4 cups of blue paint used in a batch of lilac paint.

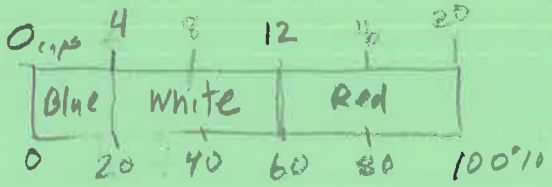
a. How many cups of white paint are used? .4 40% white 8 Cups

b. How many cups of red paint are used? .2 20% blue 4 Cups

c. How many cups of lilac paint will this batch yield? .4 40% red 8 Cups

20 Cups

If you get stuck, consider using a tape diagram.

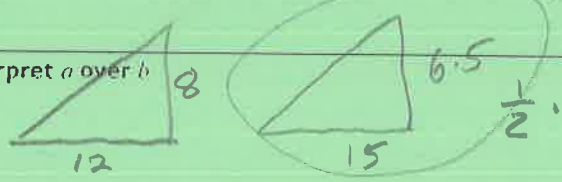


(from Unit 3, Lesson 12)

7. Triangle P has a base of 12 inches and a corresponding height of 8 inches. Triangle Q has a base of 15 inches and a corresponding height of 6.5 inches. Which triangle has a greater area? Show your reasoning.

$\frac{1}{2} \cdot b \cdot h$

$\frac{1}{2} \cdot 12 \cdot 8 = 48 in^2$



$\frac{1}{2} \cdot 15 \cdot 6.5 = 48.75 in^2$