

Activity 14 Key

pg. 1

$$1.) \frac{12}{3} = \frac{3m}{3}$$

$$4 = 1m$$

or

$$\boxed{m = 4}$$

$$2.) \frac{17}{1} \cdot \frac{a}{17} = 3 \cdot 17$$

$$1a = 51$$

or

$$\boxed{a = 51}$$

Sidework:

$$\begin{array}{r} 17 \\ \times 3 \\ \hline 51 \end{array}$$

3.)

$$\frac{32}{32} \cdot \frac{y}{32} = 4 \cdot 32$$

$$1y = 128$$

or

$$\boxed{y = 128}$$

Sidework:

$$\begin{array}{r} 32 \\ \times 4 \\ \hline 128 \end{array}$$

$$4.) \frac{0.75b}{0.75} = \frac{14.25}{0.75}$$

$$\boxed{b = 19}$$

Sidework:

$$\begin{array}{r} 19. \\ 0.75 \overline{) 14.25} \\ \underline{-75} \\ 675 \\ \underline{-675} \\ 0 \end{array}$$

$$5.) \frac{10}{1} \cdot \frac{x}{10} = 15 \cdot 10$$

$$1x = 150$$

or

$$\boxed{x = 150}$$

Method 1

$$\frac{6}{5} \cdot \frac{5}{6} x = \frac{25}{36} \cdot \frac{6}{5}$$

simplify $\rightarrow 1x = \frac{150 \div 30}{180 \div 30}$

$$\boxed{x = \frac{5}{6}}$$

$$\frac{6}{5} \cdot \frac{5}{6} x = \frac{25}{36} \cdot \frac{6}{5}$$

$$x = \frac{5}{6} \cdot \frac{1}{1}$$

Method 2

$$\frac{6}{5} \cdot \frac{5}{6} x = \frac{25}{36} \cdot \frac{6}{5}$$

$$\frac{5}{5} x = \frac{25 \div 5}{6}$$

$$x = \frac{25}{6} \cdot \frac{1}{5}$$

$$x = \frac{25 \div 5}{30 \div 5}$$

$$\boxed{x = \frac{5}{6}}$$

7a.) d = number of five dollar bills

b.) $5d = 250$

d. $5(50) = 250$

$250 = 250 \checkmark$

c.) $\frac{5d}{5} = \frac{250}{5}$

$d = 50$ five dollar bills

Kiesha has 50 five-dollar bills in her teller drawer

8a.) a = ^{total} students in honors algebra

b.) $\frac{3}{4}a = 21$

d.) $\frac{3}{4}(\frac{28}{1}) = 21$

c.) $\frac{4}{3} \cdot \frac{3}{4}a = \frac{21}{1} \cdot \frac{4}{3}$ or $\frac{4}{3} \cdot \frac{3}{4}a = \frac{21}{1} \cdot \frac{4}{3}$

$\frac{84}{4} = 21$

$21 = 21 \checkmark$

$a = \frac{7}{1} \cdot \frac{4}{1}$

$a = \frac{84}{3}$ *simplify

$a = 28$ total students in honors algebra

9a.) t = pounds of trash composted

b.) $\frac{t}{90} = 1.5$ average pounds

c.) $\frac{t}{90} = 1.5 \cdot 90$

$t = 135$ pounds of trash would be composted

10.
Yes, she is correct because when you solve for x the factors being multiplied are the same (by the Commutative Property) and the product will be the same.

$\frac{16}{1} \cdot \frac{x}{16} = 4 \cdot 16$ and $\frac{4}{1} \cdot \frac{x}{4} = 16 \cdot 4$

$x = 64$ are equal $x = 64$