WARM-UP

Determine if the ratios are equal.

equal! $\dfrac{2}{3.5} \quad \dfrac{8}{14}$ $28 = 28$

Solve the proportion for x.

$$\dfrac{x}{10} \quad \dfrac{3}{5}$$

Simplify using the distributive property.

$$-2(x - 5) \rightarrow \boxed{-2x + 10}$$

$$\dfrac{5x}{5} = \dfrac{30}{5}$$

$$\boxed{x = 6}$$

Homework Questions

(12) $\dfrac{5}{12} \neq \dfrac{20}{2g}$

$$\dfrac{240}{10} = \dfrac{10g}{10}$$

$$\boxed{24 = g}$$

Clear Learning Target

You will be able to solve proportions with addition and subtraction.

Example 1: $\dfrac{x-2}{14} = \dfrac{2}{7}$

① Cross Multiply

② Distribute

③ Solve two-step equation

$28 = 7(x-2)$

$28 = 7x - 14$

$\begin{array}{rcl} +14 & & +14 \end{array}$

$\dfrac{42}{7} = \dfrac{7x}{7}$

$\boxed{6 = x}$

Example 2: $\dfrac{x+4}{5} = \dfrac{3}{8}$

① $15 = 8(x+4)$

② $15 = 8x + 32$

③ $\quad -32 \qquad\qquad -32$

$\dfrac{-17}{8} = \dfrac{8x}{8}$

$$\dfrac{-17}{8} = x = -2.125\ldots$$