

Warm Up

Solve the following proportions:

$$\frac{20}{6} \neq \frac{x}{9}$$

$$\frac{6x}{6} = \frac{180}{6}$$

$$x = 30$$

$$\frac{x+3}{4} \neq \frac{2}{5}$$

$$8 = 5(x+3)$$

$$8 = 5x + 15$$

$$-15 \quad -15$$

$$-7 = 5x$$

$$-\frac{12}{5} = x$$

$$\frac{4}{x} \neq \frac{6}{3x+2}$$

$$6x = 4(3x+2)$$

$$6x = 12x + 8$$

$$-12x \quad -12x$$

$$\frac{-6x}{6} = \frac{8}{6}$$

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

Proportions Word Problems

Liliana used 4 dark power crystals to raise 14 zombie soldiers. She wants to know how many zombie soldiers she can raise with 10 dark power crystals.

crystals: zombies

$$\frac{4}{14} = \frac{10}{z}$$

$$4z = 140$$

$$z = 35 \text{ zombies}$$

Mika can eat 21 hot dogs in 6 minutes. He wants to know how many minutes it would take him to eat 35 hot dogs if he keeps up the same pace.

hot dogs: min

$$\frac{21}{6} \times \frac{35}{x}$$

$$210 = 21x$$

$$x = 10 \text{ min}$$

$$\frac{21}{35} \leftarrow \frac{6}{x}$$

$$210 = 21x$$

Chef Rita is cooking for a Sunday brunch. She knows that 22 pancakes can feed 8 people. She is wondering how many people she can feed with 55 pancakes.

pancakes: people

$$\frac{22}{8} = \frac{55}{x}$$

$$22x = 440$$

$$x = 20 \text{ people}$$

Worksheet