

8th Grade Lesson 62

- I can use fractional equations to solve word problems using fractional values.

Fractional part of a number equation:

$$F \cdot A = B$$

the fraction of the total = number represented
by the fraction

$\frac{1}{2}$ of class are girls. There are 10 girls.

$$\frac{1}{2} \cdot A = 10$$

Five eighths of the gnomes who lived in the magic forest had happy faces. If 840 gnomes had happy faces, how many gnomes lived in the magic forest?

1344 gnomes

$$F \cdot A = B$$

$$\frac{5}{8} \cdot \frac{5}{8} \cdot A = \frac{168}{1} \cdot \frac{840}{1}$$

$$A = 1344$$

On Monday, $2\frac{4}{5}$ times the acceptable number of rock badgers took refuge in the mountain caves. If 640 was the acceptable number, how many rock badgers took refuge in the mountain caves on Monday?

1792 badgers

$$F \cdot A = B$$

$$2\frac{4}{5} \cdot 640 = B$$

$$\frac{14}{5} \cdot \frac{128}{1} = B$$

$$1792 = B$$

When the fog lifted, 400 ghosts were spied skulking near the outskirts. If 240 ghosts were not spied, what fraction of the ghosts was not spied?

$$F \cdot A = B$$

$$\frac{F \cdot 640}{640} = \frac{240}{640}$$

$$F = \frac{3}{8}$$

$\frac{3}{8}$ of the ghosts

On your own....

When the gun sounded, only two-fifths of the racers began to run. If 460 racers began to run, how many racers were there in all?

$$F \cdot A = B$$

$$\frac{2}{5} \cdot \frac{2}{5} \cdot A = \frac{460}{1} \cdot \frac{5}{2}$$

$$A = 1150$$

1150 racers



Assignment:

Problem Set 62
#3-6, 14-15, 19-21