

ANSWERS

PERCENT PROPORTION

Solve each problem by writing and solving a proportion. Show all steps and round your answer to the nearest tenth if necessary.

Steps to Solve a Proportion

1. Set up the Proportion: Write the two ratios as fractions equal to each other. $\frac{A}{B} = \frac{C}{D}$
2. Cross-Multiply: Multiply diagonally across the equal's sign. $A \times D = B \times C$
3. Solve for the Variable: Divide to find the unknown value. Unknown: $\frac{\text{Product of Known Values}}{\text{Other Known Value}}$
4. Round: Round your answer to the nearest tenth if needed.

a) 30% of 80 apples in a basket are red. How many red apples are in the basket?

Solution:

1. Set up the proportion: $\frac{30}{100} = \frac{x}{80}$
2. Cross-multiply: $30 \times 80 = 100 \times x$
3. Solve for the Variable: $2400 = 100x \Rightarrow \frac{2400}{100} \Rightarrow x = 24$
4. Answer: **There are 24 red apples in the basket.**

b) 75% of 40 books on a shelf are fiction. How many fiction books are on the shelf?

Solution:

1. Set up the proportion: $\frac{75}{100} = \frac{x}{40}$
2. Cross-multiply: $75 \times 40 = 100 \times x$
3. Solve for the Variable: $3000 = 100x \Rightarrow \frac{3000}{100} \Rightarrow x = 30$
4. Answer: **There are 30 fiction books on the shelf.**

c) 12% of 250 cars in a parking lot are electric. How many electric cars are in the parking lot?

Solution:

1. Set up the proportion: $\frac{12}{100} = \frac{x}{250}$
2. Cross-multiply: $12 \times 250 = 100 \times x$
3. Solve for the Variable: $3000 = 100x \Rightarrow \frac{3000}{100} \Rightarrow x = 30$
4. Answer: **There are 30 electric cars in the parking lot.**

How Did You Do? 😊 😐 😞