

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) 40% of the 50 employees in a company are women. How many women work in the company?

Solution:

1. Set up the proportion: $\frac{40}{100} = \frac{x}{50}$
2. Cross-multiply: $40 \times 50 = 100 \times x$
3. Solve for the Variable: $2000 = 100x \Rightarrow \frac{2000}{100} \Rightarrow x = 20$
4. Answer: **There are 20 women in the company.**

b) 15% of 80 trees in a park are oaks. How many oaks are in the park?

Solution:

1. Set up the proportion: $\frac{15}{100} = \frac{x}{80}$
2. Cross-multiply: $15 \times 80 = 100 \times x$
3. Solve for the Variable: $1200 = 100x \Rightarrow \frac{1200}{100} \Rightarrow x = 12$
4. Answer: **There are 12 oaks in the park.**

c) 70% of 120 students passed the exam. How many students passed the exam?

Solution:

1. Set up the proportion: $\frac{70}{100} = \frac{x}{120}$
2. Cross-multiply: $70 \times 120 = 100 \times x$
3. Solve for the Variable: $8400 = 100x \Rightarrow \frac{8400}{100} \Rightarrow x = 84$
4. Answer: **84 students passed the exam.**

How Did You Do? 😊 😐 😞