

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) 55% of 180 employees in a company are full-time. How many full-time employees are there?

Solution:

1. Set up the proportion: $\frac{55}{100} = \frac{x}{180}$
2. Cross-multiply: $55 \times 180 = 100 \times x$
3. Solve for the Variable: $9900 = 100x \Rightarrow \frac{9900}{100} \Rightarrow x = 99$
4. Answer: **There are 99 full-time employees.**

b) 65% of 60 people in a survey prefer online shopping. How many people prefer online shopping?

Solution:

1. Set up the proportion: $\frac{65}{100} = \frac{x}{60}$
2. Cross-multiply: $65 \times 60 = 100 \times x$
3. Solve for the Variable: $3900 = 100x \Rightarrow \frac{3900}{100} \Rightarrow x = 39$
4. Answer: **39 people prefer online shopping.**

c) 10% of 500 trees in an orchard are pear trees. How many pear trees are in the orchard?

Solution:

1. Set up the proportion: $\frac{10}{100} = \frac{x}{500}$
2. Cross-multiply: $10 \times 500 = 100 \times x$
3. Solve for the Variable: $5000 = 100x \Rightarrow \frac{5000}{100} \Rightarrow x = 50$
4. Answer: **There are 50 pear trees in the orchard.**

How Did You Do? 😊 😐 😞