

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) 8% of 250 employees at a tech company work remotely. How many employees work remotely?

Solution:

1. Set up the proportion: $\frac{8}{100} = \frac{x}{250}$
2. Cross-multiply: $8 \times 250 = 100 \times x$
3. Solve for the Variable: $2000 = 100x \Rightarrow \frac{2000}{100} \Rightarrow x = 20$
4. Answer: **20 employees work remotely.**

b) 33% of 600 students at a university are international students. How many international students are at the university?

Solution:

1. Set up the proportion: $\frac{33}{100} = \frac{x}{600}$
2. Cross-multiply: $33 \times 600 = 100 \times x$
3. Solve for the Variable: $19800 = 100x \Rightarrow \frac{19800}{100} \Rightarrow x = 198$
4. Answer: **198 international students are at the university.**

c) 20% of 150 items in a store are on sale. How many items are on sale?

Solution:

1. Set up the proportion: $\frac{20}{100} = \frac{x}{150}$
2. Cross-multiply: $20 \times 150 = 100 \times x$
3. Solve for the Variable: $3000 = 100x \Rightarrow \frac{3000}{100} \Rightarrow x = 30$
4. Answer: **30 items are on sale.**

How Did You Do? 😊 😐 😞