

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) 5% of 150 products in a store are defective. How many products are defective?

Solution:

1. Set up the proportion: $\frac{5}{100} = \frac{x}{150}$
2. Cross-multiply: $5 \times 150 = 100 \times x$
3. Solve for the Variable: $750 = 100x \Rightarrow \frac{750}{100} \Rightarrow x = 7.5$
4. Answer: **There are 7.5 defective products in the store.**

b) 80% of the 45 minutes of a class are dedicated to practical exercises. How many minutes are dedicated to practical exercises?

Solution:

1. Set up the proportion: $\frac{80}{100} = \frac{x}{45}$
2. Cross-multiply: $80 \times 45 = 100 \times x$
3. Solve for the Variable: $3600 = 100x \Rightarrow \frac{3600}{100} \Rightarrow x = 36$
4. Answer: **36 minutes are dedicated to practical exercises.**

c) 30% of the 40 players on a soccer team are defenders. How many defenders are on the team?

Solution:

1. Set up the proportion: $\frac{30}{100} = \frac{x}{40}$
2. Cross-multiply: $30 \times 40 = 100 \times x$
3. Solve for the Variable: $1200 = 100x \Rightarrow \frac{1200}{100} \Rightarrow x = 12$
4. Answer: **There are 12 defenders on the team.**

How Did You Do? 😊 😐 😞