

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) 12% of 500 seats in a theater are reserved for VIP guests. How many seats are reserved for VIP guests?

Solution:

1. Set up the proportion: $\frac{12}{100} = \frac{x}{500}$
2. Cross-multiply: $12 \times 500 = 100 \times x$
3. Solve for the Variable: $6000 = 100x \Rightarrow \frac{6000}{100} \Rightarrow x = 60$
4. Answer: **60 seats are reserved for VIP guests.**

b) 28% of 75 students in a class have their birthdays in the same month. How many students have their birthdays in the same month?

Solution:

1. Set up the proportion: $\frac{28}{100} = \frac{x}{75}$
2. Cross-multiply: $28 \times 75 = 100 \times x$
3. Solve for the Variable: $2100 = 100x \Rightarrow \frac{2100}{100} \Rightarrow x = 21$
4. Answer: **21 students have their birthdays in the same month.**

c) 40% of 1,200 tickets for a concert are sold out. How many tickets are sold out?

Solution:

1. Set up the proportion: $\frac{40}{100} = \frac{x}{1200}$
2. Cross-multiply: $40 \times 1200 = 100 \times x$
3. Solve for the Variable: $48000 = 100x \Rightarrow \frac{48000}{100} \Rightarrow x = 480$
4. Answer: **480 tickets are sold out.**

How Did You Do? 😊 😐 😞