

Proportions & Percent

Fractions, Decimals & % · Grade 7

Score: _____ / 10

◆ Medium · 10 Questions

Solve each problem. Show your work in the space provided. Write your answer on the line.

1. In a mixture, the ratio of A to B is 2:5. If 28 litres of A are used, how much total mixture is there?

Answer: _____

2. A \$50 jacket is on sale for 20% off. Find the sale price.

Answer: _____

3. An item costs \$80 plus 7% tax. Find total cost.

Answer: _____

4. A restaurant bill is \$40. Find a 15% tip.

Answer: _____

5. Sale price is \$36 after a 25% discount. Find the original price.

Answer: _____

6. A 5% commission on \$2,000 in sales equals?

Answer: _____

7. The ratio of boys to girls is 4:5. There are 36 students. How many boys?

Answer: _____

8. A recipe uses sugar to flour in ratio 1:3. With 6 cups of sugar, how much flour?

Answer: _____

9. A car drives at 60 mph. How far in 4.5 hours?

Answer: _____

10. A printer prints 240 pages in 8 minutes. Find pages per minute.

Answer: _____

Answer Key

Proportions & Percent — Medium

1. 98 litres

$2 \text{ parts} = 28 \rightarrow 1 \text{ part} = 14. \text{ Total} = (2+5) \times 14 = 98.$

2. \$40

$\text{Discount} = 0.20 \times \$50 = \$10. \text{ Sale price} = \$50 - \$10 = \$40.$

3. \$85.60

$\text{Tax} = 0.07 \times \$80 = \$5.60. \text{ Total} = \$80 + \$5.60 = \$85.60.$

4. \$6

$\text{Tip} = 0.15 \times \$40 = \$6.$

5. \$48

$\$36 \text{ represents } 75\% \text{ of original. } \$36 \div 0.75 = \$48.$

6. \$100

$0.05 \times \$2,000 = \$100.$

7. 16 boys

$\text{Total parts: } 4+5=9. \text{ Each part: } 36 \div 9=4. \text{ Boys: } 4 \times 4=16.$

8. 18 cups

$\text{Sugar: } 6 = 1 \times 6. \text{ Flour: } 3 \times 6 = 18 \text{ cups.}$

9. 270 miles

$\text{Distance} = \text{rate} \times \text{time} = 60 \times 4.5 = 270 \text{ miles.}$

10. 30

$240 \div 8 = 30 \text{ pages per minute.}$