

Proportional Relationships Test Review

1. In Missouri, the sales tax rate is 6.875%. If an iPad costs \$300, how much would the overall purchase cost be including tax?

Answer: \$320.63 $(100\%+6.875\%) \times 300 \rightarrow 1.06875 \times 300$

2. Mr. Smith earns a 12% commission on the sales that he makes. If he made \$1500 in sales, how much would he earn in commission?

Answer: \$180 $12\% \text{ of } \$1500 \rightarrow .12 \times 1500$

3. If your principal amount was \$350 and the interest rate was 5%, how much interest would you earn after 3 years?

Answer: \$52.50 $I = P \times r \times t$ $I = \$350 \times .05 \times 3$

4. Sneakers are normally \$90. On sale, they are marked down to \$56.49. What percent off is the sale price?

Answer: 37.2% off $\$90 - \$56.49 = \$33.51 \rightarrow \$33.51 / \$90 = 37.2\%$

5. Your restaurant bill is \$72.34. How much would a 20% tip be?

Answer: \$14.47 $20\% \text{ of } \$72.34 \rightarrow .2 \times \$72.34 = \$14.47$

6. Rebecca earns \$4250 per month. If 24% is taken out for income tax, how much is her take-home pay?

Answer: \$3230 $100\% - 24\% = 76\% \rightarrow .76 \times \$4250 = \$3230$

7. The scale factor for a toy train is 1:40. If the toy is 10 inches long, how long is the actual train?

Answer: 400 in. $10 \times 40 = 400 \text{ inches}$