

Accelerated Math 7 Chapter 6 Practice Test

<p>1. Which proportion can be used to find what number is 34% of 50?</p> $\frac{x}{50} = \frac{34}{100} \rightarrow$	$\frac{x}{50} = \frac{34}{100}$								
<p>2. 88 is 110% of what number?</p> $\frac{88}{x} = \frac{110}{100}$ $110(x) = 88(100)$ $\frac{110x}{110} = \frac{8800}{110}$ $x = 80$	<p style="text-align: center; font-size: 24pt;">80</p>								
<p>3. Fifteen of 40 marbles are striped. What percent of the marbles are striped?</p> $\frac{15}{40} = \frac{3}{8} = 0.375 = 37.5\%$	<p style="text-align: center; font-size: 24pt;">37.5%</p>								
<p>4. A survey shows that 65% of cat owners say their cat always come when they call it. If 15,000 cat owners were surveyed, how many people made this claim?</p> $0.65(15000) = 9,750$	<p style="text-align: center; font-size: 24pt;">9,750</p>								
<p>5. Which equation can be used to find what percent 6 is of 72?</p> <p>A. $72 = 6p$ B. $(72 - 6) = 100p$</p> <p>C. $6 = 72p$ D. $6(72) = p$</p>	<p style="text-align: center; font-size: 24pt;">C</p>								
<p>6. Fiona deposited \$900 in the bank over 2 years. She earned \$60.00 in simple interest at the end of the 2 years. What was the annual interest rate?</p> $\$60 \text{ IN } 2 \text{ YEARS} = \$30/\text{YEAR}$ $\frac{30}{900} = 0.0\bar{3} = 3\frac{1}{3}\%$	<p style="text-align: center; font-size: 24pt;">3$\frac{1}{3}$%</p>								
<p>7. Megan's dog weighed 18lbs. when it was one year old. Now the dog weighs 25lbs. What is the percent of change in her dog's weight to the nearest hundredth?</p> $\frac{25-18}{18} = \frac{7}{18} = 0.3\bar{8}$	<p style="text-align: center; font-size: 24pt;">38.89%</p>								
<p>8. An investment of \$800 is compounded annually at 6.5%. What is the total amount of money after 2 years?</p>	<table style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 45%; border: none;">YEAR 1 → $800(0.065) = 52.00$</td> <td style="width: 55%; border: none;">ORIGINAL INVEST. \$800.00</td> </tr> <tr> <td style="border: none;">YEAR 2 → $852(0.065) = 55.38$</td> <td style="border: none;">YEAR 1 INTEREST 52.00</td> </tr> <tr> <td style="border: none;"></td> <td style="border: none; border-bottom: 1px solid black;">YEAR 2 INTEREST 55.38</td> </tr> <tr> <td style="border: none;"></td> <td style="border: none; text-align: right; font-weight: bold;">\$907.38</td> </tr> </tbody> </table>	YEAR 1 → $800(0.065) = 52.00$	ORIGINAL INVEST. \$800.00	YEAR 2 → $852(0.065) = 55.38$	YEAR 1 INTEREST 52.00		YEAR 2 INTEREST 55.38		\$907.38
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<p>9. A store makes a profit of \$12 on a hoodie after a markup of 60%. What is the selling price of the hoodie?</p> <p>PROFIT = MARKUP $\frac{12}{x} = \frac{60}{100}$ $\frac{1200}{60} = \frac{60x}{60}$ $20 = x$ COST \$20</p> <p>ORIGINAL COST MARKUP 12 \$32 SELLING PRICE</p>	<p>SELLING PRICE IS \$32</p>
<p>10. During peak season, boat rentals cost \$80 per day. During the off-season, they cost \$60 per day. What is the percent of change from peak season to off-season?</p> <p>PEAK \$80 OFF PEAK \$60 $\frac{PEAK - OFF PEAK}{PEAK} = \frac{80 - 60}{80} = \frac{20}{80} = \frac{1}{4} = 25\%$</p>	<p>25%</p>
<p>11. Collin buys a pair of shoes marked \$89.99. He receives a 20% discount. Which equation can be used to determine the sale price of the shoes?</p> <p>A. $s = 89.99(0.20)$ B. $s = 89.99(1.80)$ C. $s = 89.99(0.80)$ D. $s = 89.99(1.20)$</p> <p>IF YOU SAVE 20%, YOU PAY 80%</p>	<p>C</p>
<p>12. A used laptop computer sells for \$180, which is an 85% reduction from the original price. What was the original price of the computer?</p> <p>ORIGINAL - REDUCTION = SALES PRICE $\frac{180}{x} = \frac{15}{100}$ $\frac{18000}{15} = \frac{15x}{15}$ \$1,200</p> <p>$100\% - 85\% = 15\%$ $\rightarrow \\$180$ $1200 = x$</p>	<p>\$1,200</p>
<p>13. A local meteorologist estimated 4.5 inches of snow for the month of December. The actual snowfall was 3.0 inches. What was the percent error of the estimate to the nearest percent?</p> <p>ACTUAL = 3in $\frac{ESTIMATE - ACTUAL}{ACTUAL} = \frac{4.5 - 3}{3} = \frac{1.5}{3} = 0.5 = 50\%$</p>	<p>50%</p>
<p>14. Which fraction would be best to use to find 20% of 48 mentally?</p> <p>A. $\frac{1}{5}$ B. $\frac{1}{4}$ C. $\frac{1}{3}$ D. $\frac{1}{2}$</p>	
<p>15. Manny deposits \$500 into an account that earns 2% simple interest. Justina deposits \$375 into an account that earns 5% simple interest. How much money is in each account after 10 years? At those interest rates, how many years would it be before Justina has more money than Manny?</p> <p>MANNY $\\$500(0.02) = \\10 $\\$500 + \\$100 = \\$600$ $\\$10(10) = \\100</p> <p>JUSTINA $\\$375(0.05) = \\18.75 $\\$375 + \\$187.5 = \\$562.50$ $\\$18.75(10) = \\187.5</p> <p>EXTRA MANNY HAS IN THE BEGINNING \$125 EXTRA JUSTINA EARNS EACH YEAR \$8.75 $\frac{\\$125}{\\$8.75} = 14.29 \rightarrow$</p>	<p>Manny (10 yrs) \$600 Justina (10 yrs) \$562.50 Years till Justina has more total money than Manny. 15 YEARS</p>