NAME _____ DATE _____ PERIOD _____

Pretest

Use the percent proportion or percent equation to solve each problem.

1. 30 is 40% of what number? 1. _____

2. What percent of 50 is 36? 2. _____

3. What is 15% of 28? 3. _____

4. 16 is 25% of what number? 4. _____

5. What fraction would you use to find $33\frac{1}{3}\%$ of 51 mentally? $33\frac{1}{3}\% = \frac{1}{3}$ $\frac{1}{3}$ of $51 = 17$ 5. $\frac{1}{3}$

6. Nine out of 43 campers at a summer camp prefer swimming more than any other activity. What percent of campers prefer swimming? Round your answer to the nearest tenth. 6. _____

Solve each problem.

7. An LCD television is on sale for $500. This price is 75% of its original price. What was the original price of the television? 7. _____

8. A computer mouse costs $29. If a 6.25% sales tax is added, what is the total cost? 8. _____

9. Find the percent of change from 24°F to 39°F. Then state whether the percent of change is an *increase* or a *decrease*. 9. _____

10. Manuel purchases a suit for $130. Sales tax is 7% on all purchases. How much sales tax does Manual pay? 10. _____

11. A pair of roller blades has an original price of $260. The roller blades are on sale for 55% off the original price. Find the sale price of the roller blades. 11. _____

12. Find the selling price if a store pays $48 for a painting and the markup is 65%. 12. _____

13. Eli borrowed $9,500 to buy a jet ski. He will pay $218 each month for the next 48 months. Find the simple interest rate for his loan, to the nearest tenth of a percent. 13. _____

13. Eli borrowed \$9,500 to buy a jet ski. He will pay \$218 each month for the next 48 months. Find the simple interest rate for his loan, to the nearest tenth of a percent.

$P = 9{,}500$

$R = x$

$T = 4$

$I = 964$

$\frac{964}{9500(4)} = \frac{964}{38000} = 2.5\%$

964 ÷ 38000 = 0.025368

→ PRINCIPAL × RATE × TIME = INTEREST

$P = 5{,}000$

$R = 4.5\%$

$T = 2$

$5000(0.045)(2) = 450$

$218(48) = 10464$

$\begin{array}{r} 9 \\ \cancel{10}464 \\ 9500 \\ \hline 964 \end{array}$

$2 \times 3 \times 4 = 24$ $\quad 2 \times ? \times 4 = 24$ $\quad x = \frac{24}{2 \times 4}$

9. Find the percent of change from 24°F to 39°F. Then state whether the percent of change is an *increase* or a *decrease*.

① FIND THE DIFFERENCE $39 - 24 = 15$

② DIVIDE THE DIFFERENCE BY THE STARTING AMOUNT $\frac{15}{24} = \frac{5}{8} = 0.625 = 62.5\%$

62.5% INCREASE

FIND THE PERCENT OF CHANGE FROM 39°F TO 24°F

$\frac{15}{39} = 0.3846 = 38.5\%$ DECREASE

13. Eli borrowed \$9,500 to buy a jet ski. He will pay \$218 each month for the next 48 months. Find the simple interest rate for his loan, to the nearest tenth of a percent.

PRINCIPAL x RATE x TIME = INTEREST

9,500 4 964

218
×48
10464

10,464
-9500
964

2 × 3 × 4 = 24

$\frac{24}{2 \times 4} =$

$\frac{964}{9500(4)} =$

$\frac{964}{38000} = 0.0253$

2.5%

9. Find the percent of change from 24°F to 39°F. Then state whether the percent of change is an *increase* or a *decrease*.

$39°F \rightarrow 24°F$

① $39 - 24 = 15$ $\quad 24 - 39 = -15$

② $\frac{15}{39} = 38.5\%$ DECREASE

① FIND THE AMOUNT OF CHANGE

$39 - 24 = 15$

② DIVIDE THE AMOUNT OF CHANGE BY THE ORIGINAL AMOUNT

$\frac{15}{24} = \frac{5}{8} = 62.5\%$

62.5% INCREASE

12. Find the selling price if a store pays $48 for a painting and the markup is 65%.

$48(0.65) = $31.20 $48 + $31.20 =

12. $79.20

48(1.65) = $79.20

100% 65%

COST OF THE ITEM MARKUP

11. A pair of roller blades has an original price of $260. The roller blades are on sale for 55% off the original price. Find the sale price of the roller blades.

DISCOUNT

IF YOU SAVE 55%

WHAT DO PAY 45%