Name _____

Pre Algebra - Review for Quiz
% Increase/Decrease, Interest, Word Problems with %'s

① A school newspaper says that 3 students, or 6% of the Students surveyed, can wiggle their ears. How many Students were surveyed?

① $$\frac{3}{x} = \frac{6}{100}$$

$$\frac{6x}{6} = \frac{300}{6}$$

$$x = 50 \text{ students}$$

② There were 198,000 spectators at the WWF wrestling match in 1995. In 1997 there were 167,000. What is the percent increase or decrease?

② $$\frac{198000 - 167000}{198000} = \frac{31000}{198000} = .16 = 16\% \text{ D}$$

③ The original price for the green shoes was $79.00. The new price is $89.00. What is the percent increase or decrease?

③ $$\frac{89.00 - 79.00}{79.00} = \frac{10}{79} = .13 = 13\% \text{ I}$$

④ Mr. Guditus bought a Ford Mustang and took a loan for $32,000. The interest rate is 12% for $6\frac{1}{2}$ year period. What is the interest?

④ $$I = P R T$$
$$I = (32000)(.12)(6.5)$$
$$I = \$24,960$$

⑤ Mrs. Hoffman bought a new T.V. on Saturday. It cost $195. On Tuesday the T.V. was on sale. The sale price is $158. What % of the original price is the sale price?

⑤

$$\frac{158}{195} = \frac{x}{100}$$

$$\frac{195x}{195} = \frac{15800}{195}$$

$$x = 81\%$$

⑥ Your aunt & uncle purchase a new refrigerator. They borrow $1500 for 8 mths at a rate of 2.5%. What is the interest they must pay back?

⑥

$$I = P R T$$
$$I = (1500)(.025)(.67)$$
$$I = \$25.13$$

⑦ A car salesperson earns a 6.5% commission on every car sold. The salesperson sells a car for $21,800. What is the commission?

⑦

$$\frac{x}{21800} = \frac{6.5}{100}$$

$$\frac{100x}{100} = \frac{141700}{100}$$

$$x = \$1417$$

or

$$.065(21,800) = \$1417$$