

WarmUp:

2/2/09

(#29 on pg 7 of Review Book)

A sporting goods store announced that they would mark down a snowmobile's \$1250 price by $16\frac{1}{2}\%$. What would be the new selling price?

$$\frac{16\frac{1}{2}\%}{100\%} = \frac{x}{1250}$$

$$100x = 16\frac{1}{2}(1250)$$

$$\frac{100x}{100} = \frac{20625}{100}$$

$$x = 206.25$$

$$\begin{array}{r} 1250.00 \\ - 206.25 \\ \hline 1043.75 \end{array}$$

8-6 Simple Interest

2/2/09

Interest is the amount paid or earned for the use of money

$$I = p \cdot r \cdot t$$

↑ Interest ↑ principal → amount of money invested
 rate (%) ← time (in years)

ex: Raul Franco borrowed \$2,400 to buy a new computer. He will be paying \$125 per month for the next 24 months. Find the simple interest rate on his loan.

Amount of interest he will pay

$$125 \times 24 = 3000$$

paid 3000 on computer that cost 2400.

$$\begin{array}{r} 3000 \\ - 2400 \\ \hline 600 \end{array}$$

600 ← amount extra paid (interest)

$$I = p \cdot r \cdot t$$

↑ amount cost \$2400 ← time in years
 ↓ 24 months = 2 years

Know:

- costs 2400
- paid 125 per month, (x/3000 total) 24 months
- Find rate r

$$I = prt$$

$$600 = (2400)r(2)$$

$$\frac{600}{4800} = 4800r$$

$$0.125 = r \rightarrow \text{convert to \%} \rightarrow 12.5\%$$

HW: p 355 # 9, 15