

Warm Up: 8-1

1/27

- ① A recipe for muffins calls for  $1\frac{1}{2}$  cups of Bran cereal. The recipe makes 12 muffins. How much bran cereal is needed to make 96 muffins?
- 2) Ryan's heart beats 216 times in 3 minutes. How many times will it beat in an hour?

## 8-5 Percent Problems

1/27

$$\frac{\%}{100} = \frac{\text{is}}{\text{of}} \quad \text{or} \quad \frac{\text{is}}{\text{of}} = \frac{\%}{100}$$

ex: A store advertises 20% off skates.  
Find sale price if the skates  
regularly cost \$135.

(2 Methods)

Method 1:

① Find 20% of 135

$$\frac{x}{135} = \frac{20}{100}$$

$$x = 27$$

② Subtract  
(of - is)  
regular - x

$$135 - 27 = 108$$

$$\boxed{\$108}$$

Method 2:

① Subtract → what  
percent are you paying?

$$100 - 20 = 80$$

② Find 80% of 135

$$\frac{80}{100} = \frac{x}{135}$$

$$x = 108$$

$$\boxed{\$108}$$

## Notes: Percent Problems (8-5)

1/27

ex: Originally costs \$14.50  
but on sale for 10% off

What's the sale price?

$$\frac{x}{14.50} = \frac{10}{100}$$

$$14.50(10) = 100x$$

$$\frac{145}{100} = \frac{100x}{100}$$

$$1.45 = x$$

$$\begin{array}{r} 14.50 \\ - 1.45 \\ \hline 13.05 \end{array}$$

Try: Buy a pair of jeans - on sale for 25% off  
Normally costs \$100  
What's the sale price?

HW: p 350 #21, 22