

Name: Find my Mistake Hour: _____ Student #: _____
Concept: 14-2 Self-Assess: _____ Score: _____

Concept #14 – Percents with Unknowns

For each of the following, find the missing value. For full credit, show all work.

1. 20 is what percent of 160?

$$\frac{20}{100} = \frac{x}{160} \quad 32\%$$

$$100x = 3200$$
$$x = 32$$

2. 12 is 15% of what number?

$$12 \times 0.15 = x$$
$$1.8$$

3. You decide to open up a lemonade stand. To make a profit, you decide to mark-up your lemonade 40%. If it costs you \$0.50 a cup to make, what is your selling price?

$$40(0.5) = 2.00$$

$$2.00 + 0.50 = \$2.50$$

4. A store is selling a video game for \$52, after a 20% discount. What was the original price, before the discount?

$$\frac{52}{0.8} = \frac{0.2x}{0.2}$$
$$\$260$$

5. You are out shopping and buy a hockey stick for \$87.50, which was marked up 25%. What was the original price, before the mark-up?

$$87.50(0.25) = \$21.88$$
$$+ 87.50$$

$$\$109.38$$