Percent Word Problems

1. In part because of the popularity of outlet malls, about 300 of the 1800 traditional retail malls across the United States may close in the next few years. Find the percent of retail malls that may close?

$$\frac{300}{1800} = .16\overline{6} = 16.6\% \text{ of retail malls may close}$$

2. The bee hummingbird is the smallest bird. It can weigh as little as 2 grams. The largest bird, the ostrich, can weigh as much as 150 kilograms. What percent of the weight of a bee hummingbird is the weight of an ostrich?

.004 lbs. (above "2 grams")
~~150 kilograms~~ *331 lbs.*

$$\frac{.004}{331} = .000012 = .0012\%$$

3. The School handles 1,700 pieces of mail each month. This is 40% of the yearly total. How many pieces of mail are sent each ~~month~~ *year*?

$$\frac{1,700}{X} = \frac{40}{100} \qquad 170,000 = 40X$$
$$X = 4,250 \text{ a year}$$

4. The weight of a nickel is 80% of the weight of a quarter.

   a. If a nickel weighs 5 grams, how much does a quarter weigh?

   $$\frac{5}{X} = \frac{80}{100} \qquad 80X = 500 \qquad \text{The quarter weighs}$$
   $$X = 6.25 \qquad 6.25 \text{ grams.}$$

   b. A dime weighs 50% as much as a nickel does. What is the weight of a dime?

   $$(5)(.5) = 2.5$$

   The dime weighs 2.5 grams.

5. A bike is on sale for $170. This is 80% of the regular price. Find the regular price.

$$\frac{170}{X} = \frac{80}{100}$$

$$80x = 17000$$

$$X = 212.5$$

The regular price is $212.50

6. During a flu epidemic, 146 students out of the 680 who attend Lincoln Middle School were absent. What percent were absent?

$$\frac{146}{680} = .2147 = 21.47\%$$