

## 6.3B The Percent Proportion Word Problems

### The Percent Proportion

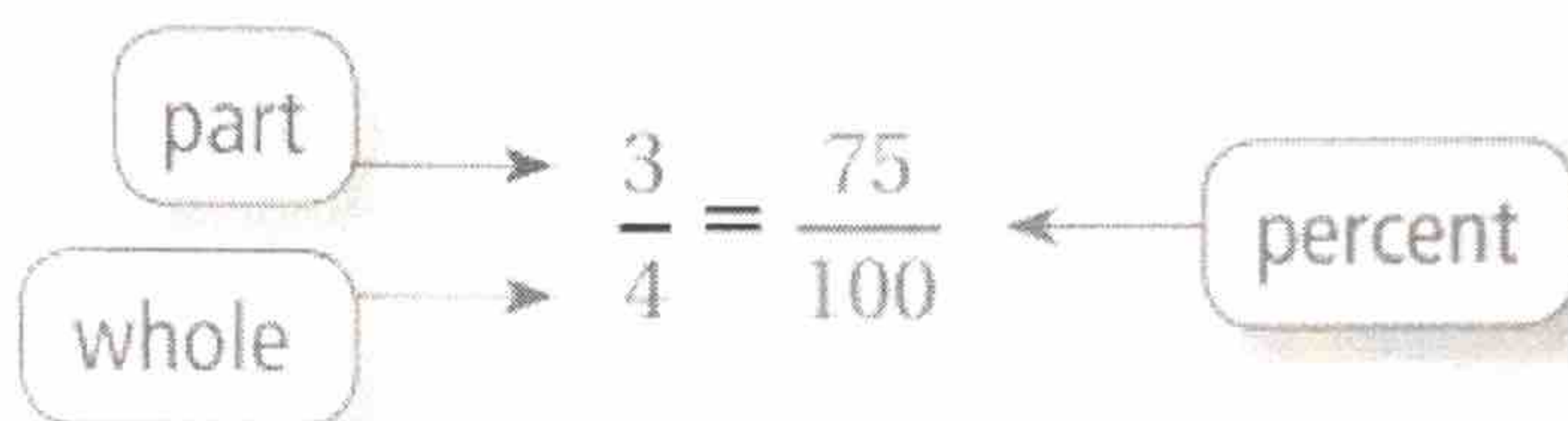
**Words** You can represent “ $a$  is  $p$  percent of  $w$ ” with the proportion

$$\frac{a}{w} = \frac{p}{100}$$

where  $a$  is part of the whole  $w$ , and  $p\%$ , or  $\frac{p}{100}$ , is the percent.

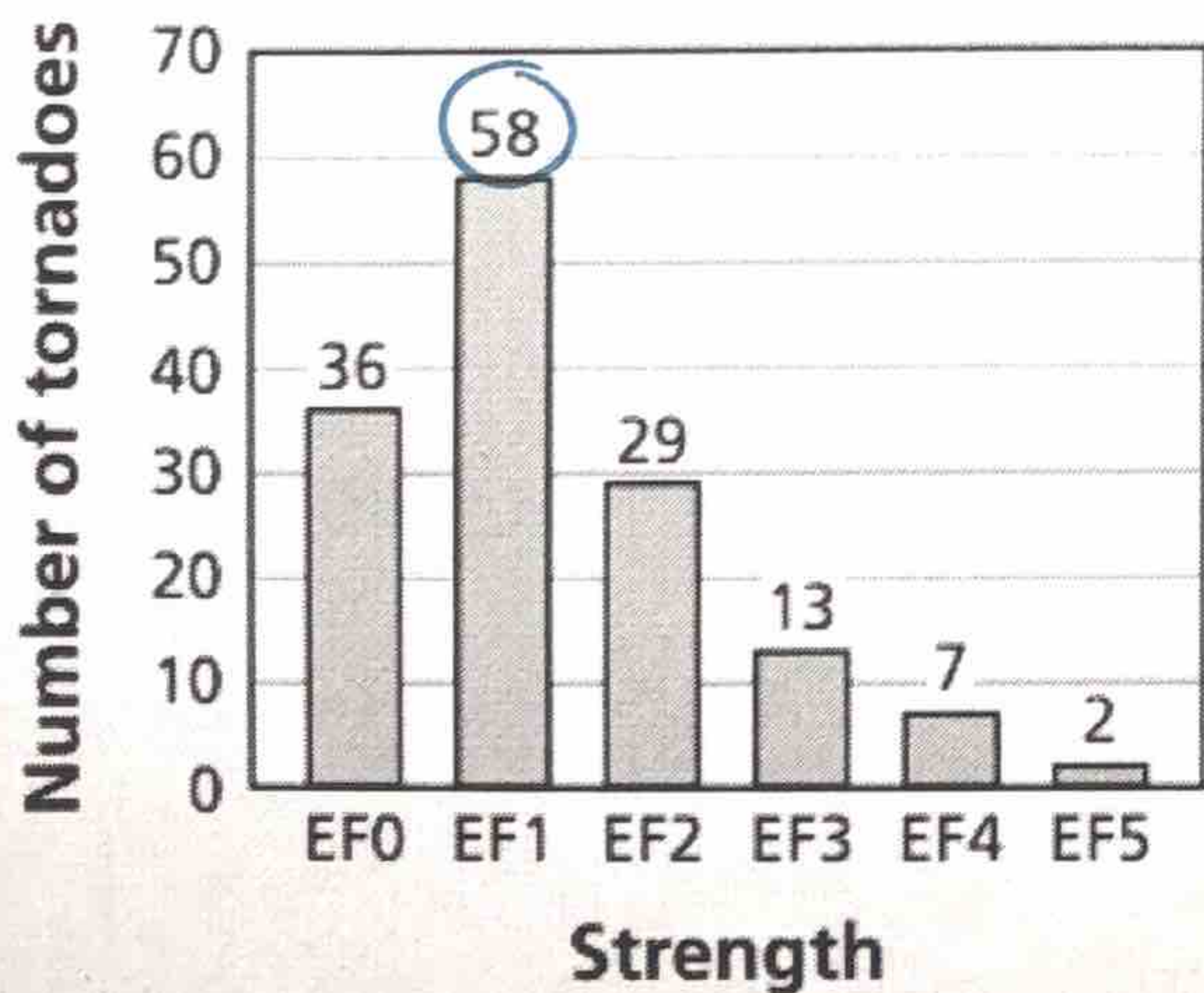
**Numbers**

3 out of 4 is 75%.



Ex: The Enhanced Fujita Scale (EF Scale) is used to rate the strength of a tornado. The bar graph shows the strengths of tornadoes that occurred in Alabama in 2011. What percent of the tornadoes were EF1s?

2011 Alabama Tornadoes



part = 58

whole =  $36 + 58 + 29 + 13 + 7 + 2 = 145$

$$\frac{\text{part}}{\text{whole}} = \frac{\%}{100}$$

$$\left(\frac{100}{1}\right) \frac{58}{145} = \frac{p}{100} \left(\frac{100}{1}\right)$$

$$p = 40$$

$$\boxed{p = 40\%}$$

Try This:

- (1) Twenty percent of the tornadoes occurred in central Alabama on April 27. How many tornadoes does this represent?

$$\frac{p}{145} = \frac{20}{100}$$

**29 tornadoes**