

## 2.8 Finding Percent of a Number

***Objective: To find the percent of a number***



# Proportion

Proportion – an equation that shows that two ratios are equivalent

Percent Proportion – one ratio compares a part to the whole and the other ratio is written with 100 as the denominator.

$$\frac{2}{5} = \frac{\text{part}}{\text{whole}}$$
$$\frac{2}{5} = \frac{?}{100}$$

?% of 5 is 2?

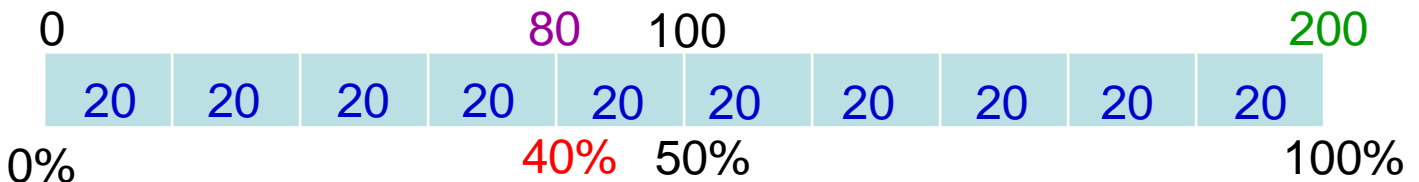
40%

# Using a Proportion and bar diagram

$$\frac{\%}{100} = \frac{\text{part (is)}}{\text{whole (of)}}$$

1) Find 40% of 200

$$\frac{40}{100} \cdot \frac{200}{2} = \frac{x}{200} \quad x = 80$$



We divided the tape diagram into 10 sections, so each section represents 10%

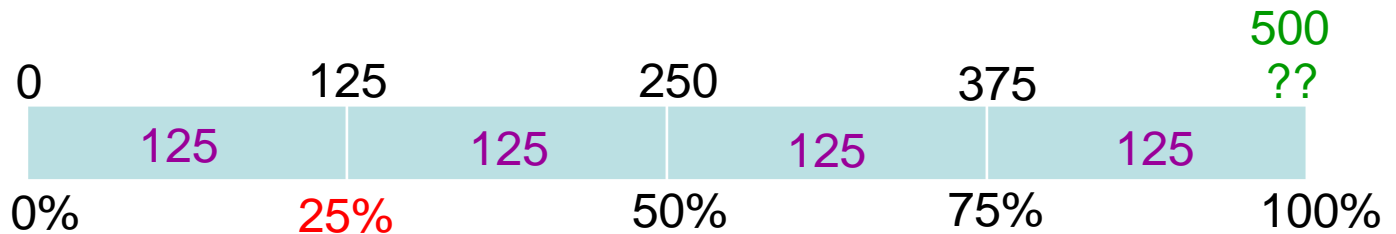
The **WHOLE** is 200 so divide that by the 10 parts (sections, and each part is 20

# Using a Proportion and bar diagram

$$\frac{\%}{100} = \frac{\text{part (is)}}{\text{whole (of)}}$$

2) 25% of what number is 125?

$$\frac{25 \cdot 5}{100 \cdot 5} = \frac{125}{x} \quad x = 500$$



We divided the tape diagram into 4 sections, so each section represents 25%

Each PART is 125, so we can fill in each part (section) to find the WHOLE (500)

# Practice

3) 7 is 70% of what number?  
10

4) 80 is 25% of what number?  
320