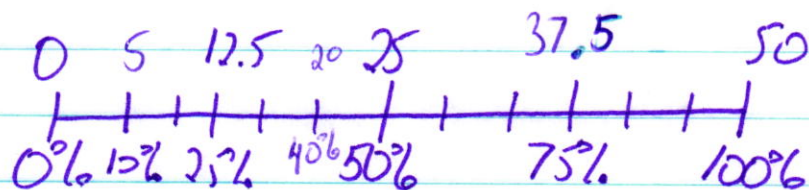


Solving Percent Problems

Ratio = fraction; comparison of two quantities by division

Ex.) 40% of 50

Method 1 % Model



- Find 50% which is $\frac{1}{2}$ of total
- Then, find $\frac{1}{2}$ of 50%. This gives us 25%
- To get 75%, add the amounts at 25% and 50%.
- To find 10%, divide the total amount by 10
- If we know that for every 10%, it is counting by 5, we multiply 5×4 to get 40%. So our answer is 20 at 40%

Solving Percent Problems

Method 2

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

- Substitute information into proportion

$$\frac{x}{50} = \frac{40}{100}$$

- Find the diagonal that has a numerator and a denominator. Multiply.

$$\begin{array}{r} \frac{x}{50} = \frac{40}{100} \quad \begin{array}{r} 40 \\ \times 50 \\ \hline 00 \\ 200 \\ \hline 2000 \end{array} \end{array}$$

- Divide by remaining number.

$$\begin{array}{r} 20 \\ 100 \overline{) 2000} \\ \underline{-200} \downarrow \\ 00 \\ \underline{-0} \\ 0 \end{array}$$

$$50 \quad \frac{20}{50} = \frac{40}{100}$$

40% of 50 is 20