# 2.5

# Similar Figures

# What are Proportions?

**Proportions are EQUAL RATIOS**

$$\frac{3}{5} = \frac{6}{10}$$

## Cross Products

# How can we tell if two ratios are proportional?

$$\frac{4}{6} = \frac{6}{9}$$

# Using Cross Products to Solve Proportions

1) $\frac{x}{25} = \frac{6}{10}$

# Using Cross Products to Solve Proportions

2) $\frac{2}{9} = \frac{3}{d}$

# Using Cross Products to Solve Proportions

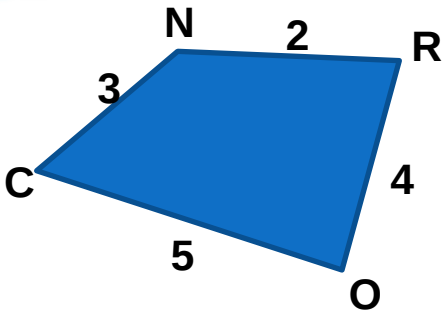
**Solve for the missing variable.**

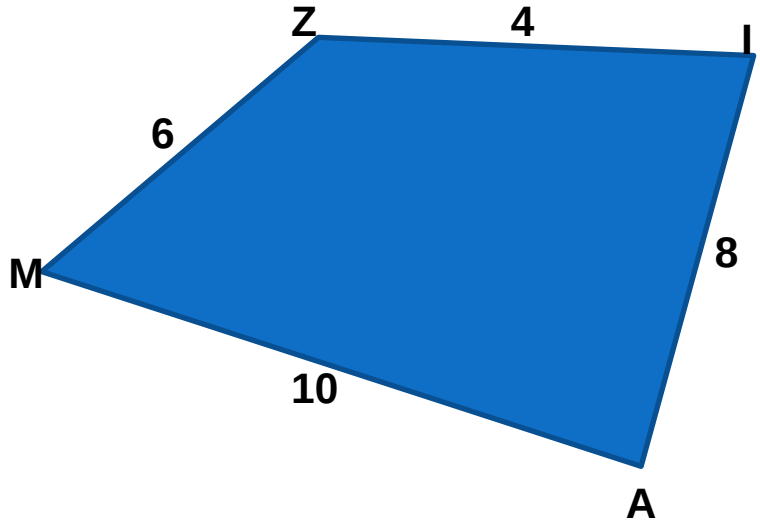
3) $\frac{b}{8} = \frac{15}{20}$

4) $\frac{10}{a} = \frac{15}{18}$

# Similarity

*CORN ~ MAIZ*

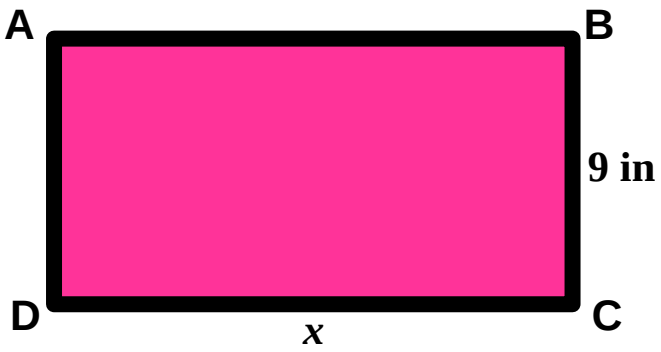


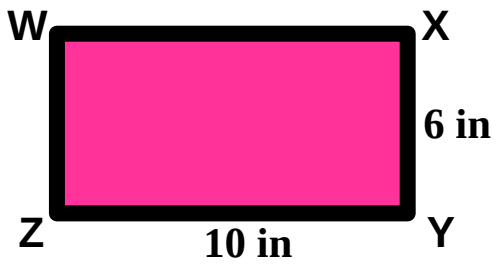




List 3 properties of similar shapes:

- **Same shape, different size**
- **Corresponding angles are congruent**
- **Corresponding sides are proportional**

# FIND MISSING SIDES

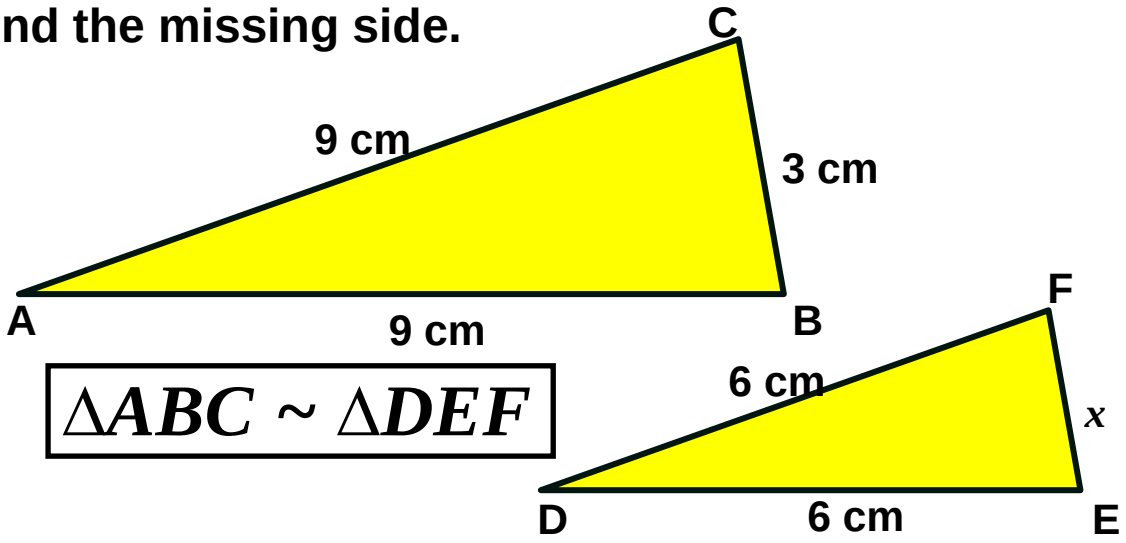



$ABCD \sim WXYZ$

# PRACTICE

Find the missing side.

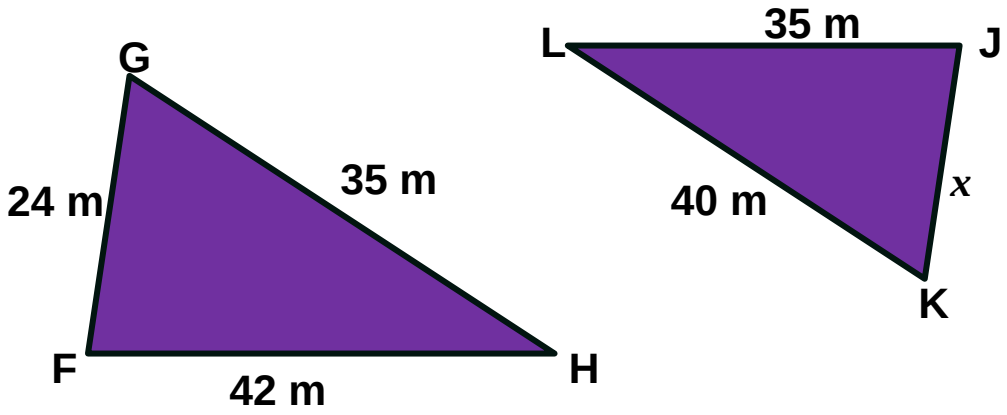



$\Delta ABC \sim \Delta DEF$

# PRACTICE

$\Delta FGH \sim \Delta JKL$

**Find the missing side.**



# PRACTICE

$\Delta BAT \sim \Delta MEN$

**Find the missing sides.**