

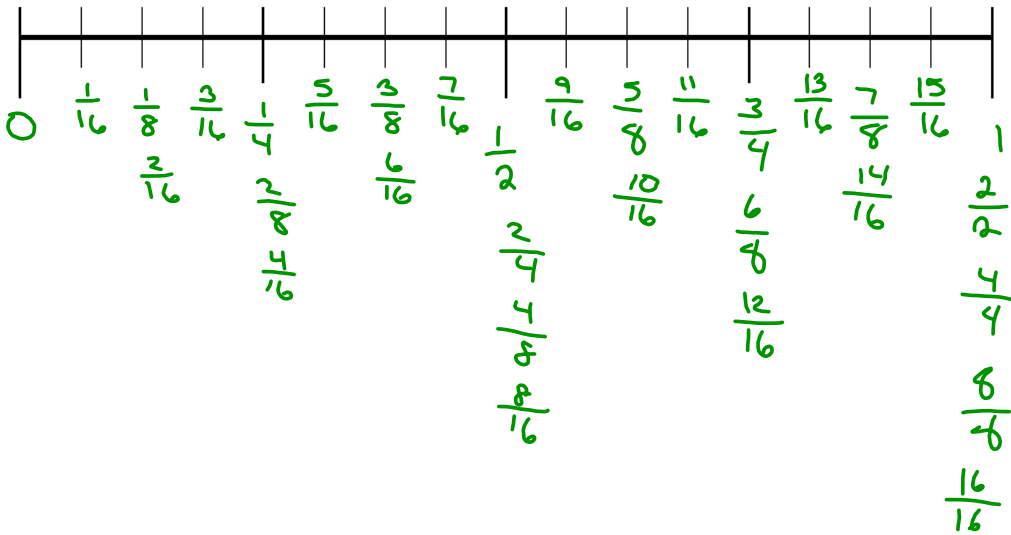
2-8-17

Aim: SWBAT review using a ruler as a measurement tool and investigate the properties of similar shapes.

HW: [Packet Page 4](#)

Do Now: Write your name on the packet.

Zooming Into 1 Inch





Enlarging a Picture

- If only the length is increased, the picture looks distorted
- If only the width is increased, the picture is distorted
- If length and width are increased at the same time, the new picture looks exactly the same as the original, just bigger.



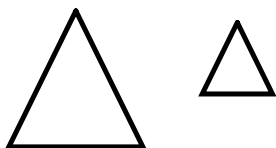
Shrinking a Picture

- If only the length is decreased, the picture looks distorted
- If only the width is decreased, the picture is distorted
- If length and width are decreased at the same time, the new picture looks exactly the same as the original, just smaller.

Similar (\sim): Same shape, but not necessarily the same size.

To say two shapes are similar, the following must be true...

- corresponding angles must be congruent
- ratios of the lengths of corresponding sides are equal

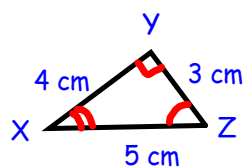
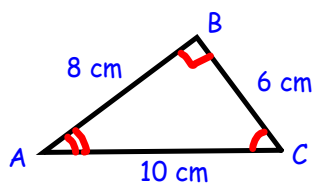


Congruent (\cong): Same shape and same size.

To say two shapes are congruent, the following must be true...

- corresponding angles must be congruent
- corresponding sides are congruent





The basic mathematical statement $\triangle ABC \sim \triangle XYZ$ "triangle ABC is similar to triangle XYZ" says the following...

$$\angle A \cong \angle X$$

$$\angle B \cong \angle Y$$

$$\angle C \cong \angle Z$$

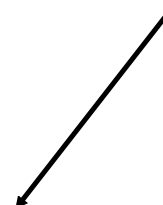
Corresponding angles are congruent

$$\frac{AB}{XY} = \frac{BC}{YZ}$$

$$\frac{BC}{YZ} = \frac{AC}{XZ}$$

$$\frac{AC}{XZ} = \frac{AB}{XY}$$

Corresponding sides are proportional (same unit ratio)

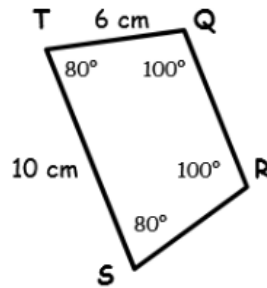
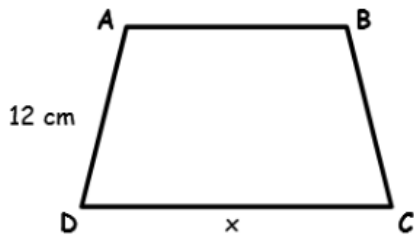


Name _____

Date _____

Period _____

$ABCD \sim QRST$



- | | | |
|---|---|---|
| 1. $\angle A$ corresponds to \angle _____ | 5. \overline{AB} corresponds to _____ | 9. Find the measure of $\angle A$. _____ |
| 2. $\angle B$ corresponds to \angle _____ | 6. \overline{BC} corresponds to _____ | |
| 3. $\angle C$ corresponds to \angle _____ | 7. \overline{CD} corresponds to _____ | 10. Find x algebraically. |
| 4. $\angle D$ corresponds to \angle _____ | 8. \overline{AD} corresponds to _____ | |