Congruence and Similarity

Figures that are the same shape are congruent or similar.

Two figures with the **same angle measures** and **same side lengths** are **congruent**.

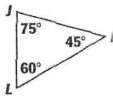$\angle X \cong \angle T$ $\overline{XY} \cong \overline{TU}$

$\angle Y \cong \angle U$ $\overline{XZ} \cong \overline{TV}$

$\angle Z \cong \angle V$ $\overline{YZ} \cong \overline{UV}$

$\triangle XYZ$ and $\triangle TUV$ are congruent.

Two figures with the **same angle measures** and **different side lengths** are **similar**.

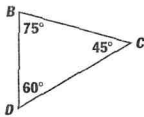$\angle B \cong \angle J$ $\angle C \cong \angle K$ $\angle D \cong \angle L$

The corresponding line segments are not congruent.

$\triangle BCD$ and $\triangle JKL$ are similar.

Tell whether the figures in each pair are congruent or not. If they are, for each angle and side write the corresponding congruent part.
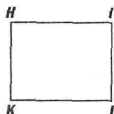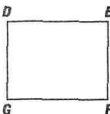
1.

Congruent shapes? _____

$\angle A \cong \angle D$ $\overline{AB} \cong \overline{DE}$

$\angle B \cong$ _____ $\overline{BC} \cong$ _____

$\angle C \cong$ _____ $\overline{AC} \cong$ _____

_____

2.

Congruent shapes? _____

$\angle D \cong$ _____ $\overline{DE} \cong$ _____

$\angle E \cong$ _____ $\overline{EF} \cong$ _____

$\angle F \cong$ _____ $\overline{FG} \cong$ _____

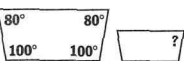$\angle G \cong$ _____ $\overline{DG} \cong$ _____

_____

Find the measure of the missing angle in each pair of similar figures.

3.

_____

4.

_____