congruent figures
$\cong$

Figures that have the exact same size and shape.

corresponding parts

The matching Parts on different figures

$\cong$ ↑ symbol Congruent

$\overline{CB} \cong \overline{YZ}$
$\overline{CA} \cong \overline{YX}$

$\overline{AB} \cong \overline{XZ}$

$\angle A \cong \angle X$
$\angle B \cong \angle Z$

$\angle C \cong \angle Y$


🙂
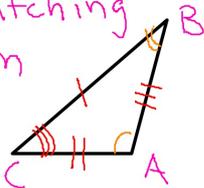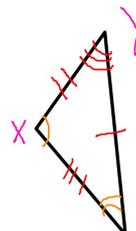
$40 + 90 + a = 180°$
$130 + a = 180°$

$17x - y$

$40°$

$12x + 4y = 40$

$17x - y = 50$
$\underline{ +y \quad +y}$
$17x = 50 + y$
$\quad -50 \; -50$
$17x - 50 = y$

$12x + 4y$

a 50

90   90
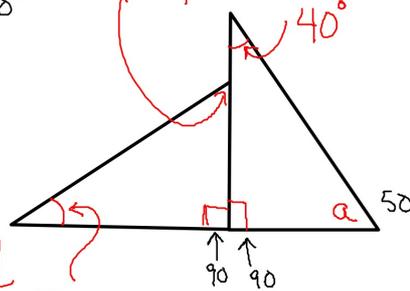
$12x + 4(17x - 50) = 40$
$12x + 68x - 200 = 40$
$80x = 240$

Properties of $\cong$ $\triangle$'s

Reflexive $\triangle ABC \cong \triangle ABC$

Symmetric $\triangle ABC \cong \triangle DEF$ then $\triangle DEF \cong \triangle ABC$

Transitive $\triangle ABC \cong \triangle DEF$
               AND
               $\triangle DEF \cong \triangle GHI$

               $\triangle ABC \cong \triangle GHI$