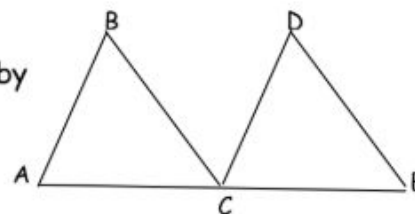


Assume that $\overline{AB} \cong \overline{CD}$ and $\overline{BC} \cong \overline{DE}$. What additional Information would you need to prove that $\triangle ABC \cong \triangle CDE$ by SSS? _____



Assume that $\overline{AB} \cong \overline{CD}$ and $\overline{BC} \cong \overline{DE}$. What additional Information would you need to prove that $\triangle ABC \cong \triangle CDE$ by SAS? _____

$\triangle CDE \cong \triangle FGH$, $m\angle G = (x + 17)^\circ$, $m\angle E = (19 - x)^\circ$, $m\angle H = (27 - 2x)^\circ$, $GH = 39 - 3x$. Find DE.

$\triangle RST \cong \triangle XYZ$, $m\angle R = (11x - 1)^\circ$, $m\angle X = (9x + 5)^\circ$, and $RT = 7x + 5$. Find XZ.

$\triangle JKL \cong \triangle MNO$, $m\angle K = (3x + 7)^\circ$, $m\angle N = (2x + 24)^\circ$, $m\angle L = (5x - 42)^\circ$, and $m\angle O = (4x - 25)^\circ$. Find the measure of $\angle M$.

Find the measure of each angle in $\triangle ABC$ if:

$$\angle A = (x)^\circ$$

$$\angle B = (1.5x + 15)^\circ$$

$$\angle C = (3.5x - 15)^\circ$$

State the postulate or theorem you would use to prove each pair of triangles congruent. If the triangles cannot be proved congruent, write *not possible*.

