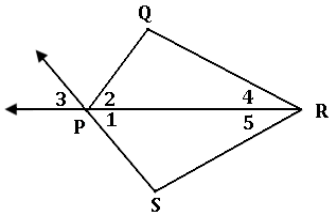
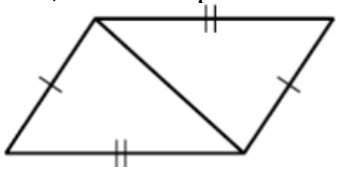
Congruent Triangles Worksheet

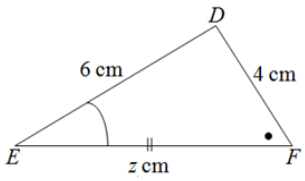
1) Given: $\angle 4 \cong \angle 5$, $\overline{QR} \cong \overline{SR}$
Prove: $\angle 2 \cong \angle 3$

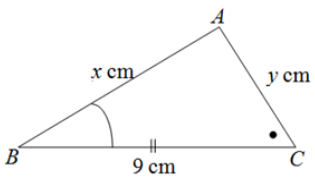


2) Determine which postulate can be used to prove that the triangles are congruent. If it is not possible to prove that they are congruent, write *not possible*.

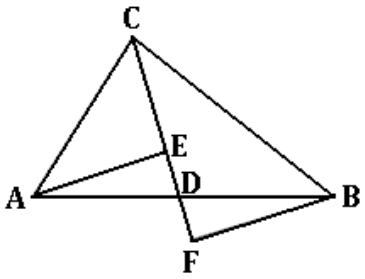


3) In what way is ΔDEF congruent to ΔABC? Find the value of each of the sides in the given pair of triangles.





4) Given: D is the midpoint of $\overline{AB}$
$\overline{AE} \perp \overline{CF}$; $\overline{BF} \perp \overline{CF}$
Prove: $\overline{AE} \cong \overline{BF}$



5) An architect used the window design in the diagram when remodeling an art studio. $\overline{AB}$ and $\overline{CB}$ each measure 3 feet. Suppose D is the midpoint of $\overline{AC}$. Determine whether $\Delta ABD \cong \Delta CBD$. Justify your answer:

6) An architect used the window design in the diagram when remodeling an art studio. $\overline{AB}$ and $\overline{CB}$ each measure 3 feet. Suppose $\angle A \cong \angle C$. Determine whether $\Delta ABD \cong \Delta CBD$. Justify your answer.