## Congruent Triangles Worksheet

1) A student claims that the marks in the diagram show that $\triangle A C D \cong \triangle B D C$ by AAS. Why is it impossible for the marks to be correct?

2) Given: $\angle 1 \cong \angle 2, \angle R F I \cong \angle R I F$
$\overline{R A}$ bisects $\angle F R I, \quad \overline{F R} \cong \overline{R I}$
Prove: $\angle 5 \cong \angle 6$

3) Given: D is the midpoint of $\overline{A B}$.

$$
\overline{A E} \perp \overline{C F} ; \overline{B F} \perp \overline{C F}
$$

Prove: $\overline{A E} \cong \overline{B F}$


