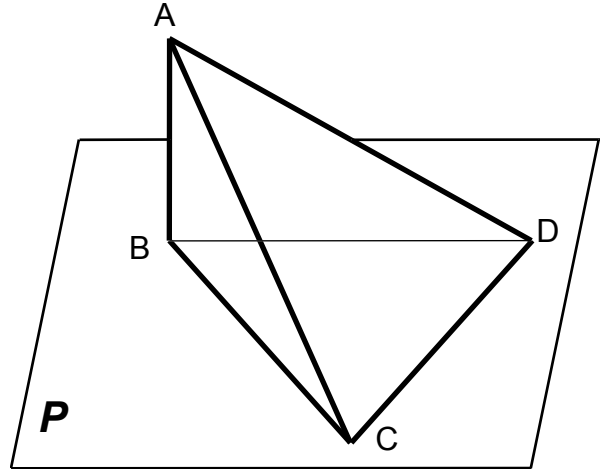


H. Geom. 3-D Proofs

Name _____

1. *Given:* $\overline{AB} \perp P$, $\overline{BC} \cong \overline{BD}$
Prove: $\overline{AC} \cong \overline{AD}$
2. *Given:* $\angle BCA \cong \angle BDA$, $\overline{AB} \perp P$
Prove: $\triangle ACD$ is isosceles
3. *Given:* $\overline{AB} \perp P$ and $\triangle ACD$ is equilateral.
Explain: why $\triangle BCD$ could **not** be equilateral.



4. *Given:* $\overline{AB} \perp P$, $\overline{RU} \perp \overline{VT}$,
and \overline{RU} bis $\angle VRT$
Prove: $\triangle VST$ isos.
5. *Given:* $\overline{AB} \perp P$, $\triangle STV$ equilateral
and $\overline{SU} \perp \overline{VT}$
Prove: $\overline{RU} \perp \overline{VT}$
6. *Given:* $\overline{AB} \perp P$, $\overline{RU} \perp \overline{VT}$, $\overline{ST} \cong \overline{RU}$
Prove: $\overline{TU} \cong \overline{RS}$

