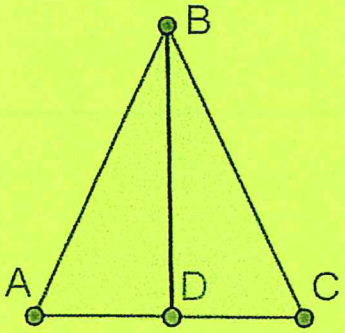
Applying Deductive Reasoning (please don't write on this page)

Create a structured argument to convince deductively:

"If a triangle is isosceles, then its base angles are congruent."

(we investigated inductively to write and apply this statement as C-18).

Use "tiles" from paper clip to fill in the blanks.



Given: Isosceles ΔABC with $\overline{AB} \cong \overline{CB}$ and angle bisector $\overline{BD}$

Show: $\angle A \cong \angle C$

What	Why
1) $\overline{AB} \cong \overline{CB}$	Given
2) $\overline{BD}$ is an angle bisector	Given
3) $\angle ABD \cong \angle CBD$	Definition of angle bisector
4) $\overline{BD} \cong \overline{BD}$	Shared Side
5) $\Delta ABD \cong \Delta CBD$	SAS shortcut
6) $\angle A \cong \angle C$	Corresponding parts are congruent

Therefore, if a triangle is isosceles, then its Base angles are congruent.

After discussing and arranging missing parts of the structured argument (2-column proof), practice explaining the argument verbally with a "persuasive argument."

Then copy the entire proof into your in-class section of your notebook. Now try the fill-in-the-blank proof on the screen (in-class section). Copy all parts.