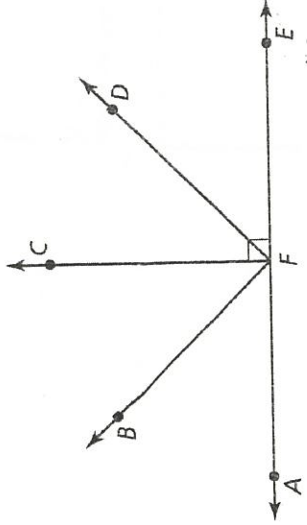


EXTRA CREDIT: Flow Chart Proofs

Complete the flow charts with your groups. This will be graded like a Group Review – only one will be graded from the group and you will all get that score. DUE AT THE END OF THE PERIOD, NO EXCEPTIONS!



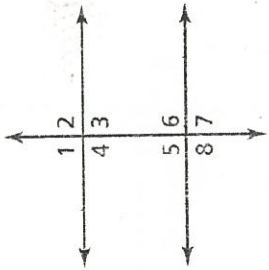
Given $\overline{BF}$ bisects $\angle AFC$ and $\angle CFD \cong \angle BFC$.

Prove $\angle AFB \cong \angle CFD$.

Flowchart for the first proof:

- Box 1: $\overline{BF}$ bisects $\angle AFC$ (given)
- Box 2: $\angle CFB \cong \angle AFB$ (def. of an angle bisector)
- Box 3: $\angle CFB \cong \angle CFB$ (given)
- Box 4: $\angle AFB \cong \angle CFD$ (transitive prop.)

Handwritten notes: "highlighted items are what you filled in!!", "0.25", "there is a change!!"



Given: $\angle 1$ is a right angle.
 $\angle 5$ is a right angle.
 $\angle 5$ and $\angle 8$ are supplementary.

Prove: $\angle 3 \cong \angle 8$

Flowchart for the second proof:

- Box 1: $\angle 5$ and $\angle 8$ are supplementary (given)
- Box 2: $m\angle 5 + m\angle 8 = 180$ (supp. $\angle$'s add to 180)
- Box 3: $90 + m\angle 8 = 180$ (substitution prop.)
- Box 4: $m\angle 8 = 90$ (subtraction prop.)
- Box 5: $\angle 8$ is a right angle (right $\angle$'s are 90°)
- Box 6: $\angle 3 \cong \angle 8$ (all right $\angle$'s are $\cong$)

Handwritten notes: "0.25", "there is a change!!", "all right $\angle$'s are $\cong$ ", "all right $\angle$'s are $\cong$ "

3.

Given E bisects $\overline{AI}$, $\overline{BC}$ bisects $\overline{AE}$, and $\overline{FH}$ bisects $\overline{EI}$. Prove $\overline{AD} \cong \overline{EG}$.

