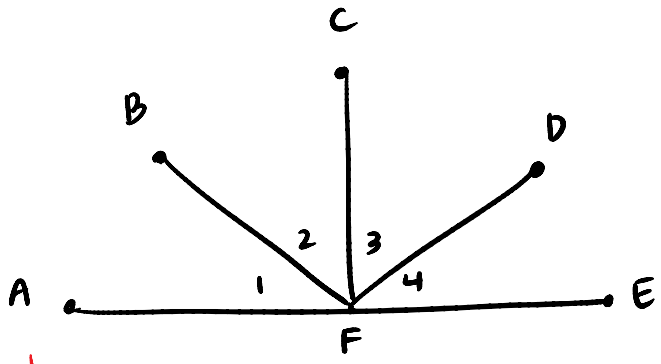
Review

pg 206: 4, 6, 8, 10, 12, 15, 20

#4 Given: $\angle 1 \cong \angle 4$

$\overrightarrow{FC}$ bisects $\angle BFD$

Conc: $\overleftrightarrow{CF} \perp \overleftrightarrow{AE}$

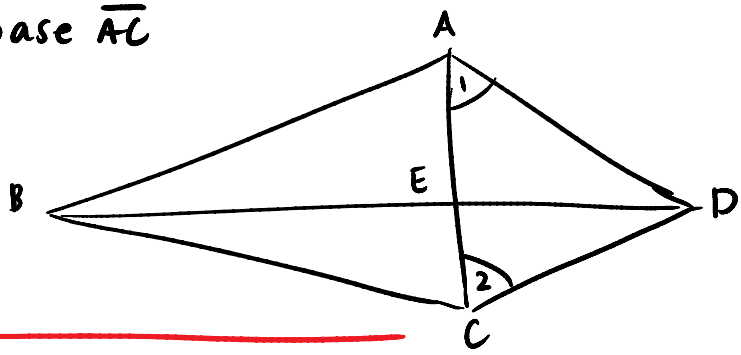


1. $\angle 1 \cong \angle 4$	1. Given
2. $\overrightarrow{FC}$ bisects $\angle BFD$	2. Given
3. $\angle 2 \cong \angle 3$	3. If a ray bisects an $\angle$ → divides the $\angle$ into 2 $\cong$ $\angle$'s
4. $\angle CFA \cong \angle CFE$	4. Addition prop
5. $\angle CFA$ and $\angle CFE$ are rt $\angle$'s	5. If 2 $\angle$'s are supp. + $\cong$ → $\angle$'s are rt $\angle$'s
6. $\overleftrightarrow{CF} \perp \overleftrightarrow{AE}$	6. If 2 lines intersect to form rt $\angle$'s → lines are $\perp$

#6 Given: $\triangle ABC$ is isosceles w/ base $\overline{AC}$

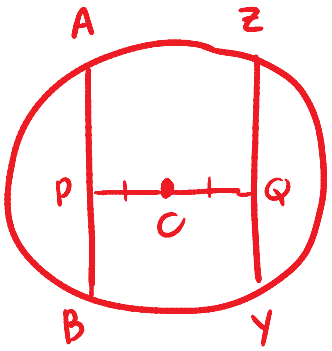
$\angle 1 \cong \angle 2$

Conc: $\overleftrightarrow{BD} \perp \overleftrightarrow{AC}$



1. $\triangle ABC$ is isos w/ base $\overline{AC}$	1. Given
2. $\overline{AB} \cong \overline{CA}$	2. If a $\triangle$ is isos → legs $\cong$
3. $\angle 1 \cong \angle 2$	3. Given
4. $\overline{AD} \cong \overline{CD}$	4. If $\triangle$ → $\triangle$
5. $\overleftrightarrow{BD} \perp \overleftrightarrow{AC}$	5. If 2 pts are equidistant from the endpts of a seg → determine the $\perp$ bisector of the segment

#8 If 2 chords of a circle are congruent, then the segments joining the midpts of the chords to the center of the circle are congruent



Given: $\odot O$
$\overline{AB} \cong \overline{ZY}$
P midpt of $\overline{AB}$
Q midpt of $\overline{ZY}$

Prove: $\overline{PO} \cong \overline{QO}$

#10

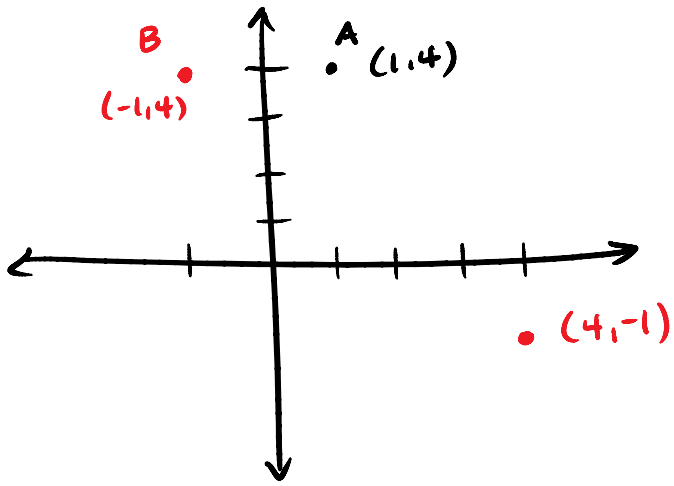
a. Pt A is reflected across the y axis to point B

(-1,4)

b. Pt A is rotated w/ respect to the origin, 90° clockwise to point C. (4,-1)

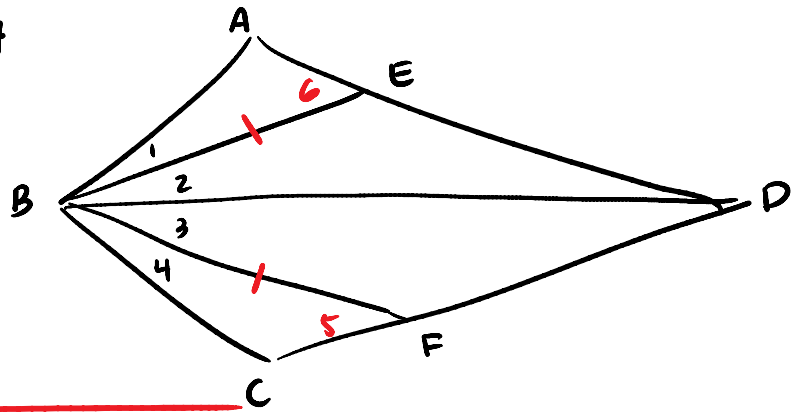
c. A is slid 2 units up and then 7 units to the right to pt. D.

(8,6)



#12 Given: $\angle 1 \cong \angle 2 \cong \angle 3 \cong \angle 4$
$\overline{BE} \cong \overline{BF}$

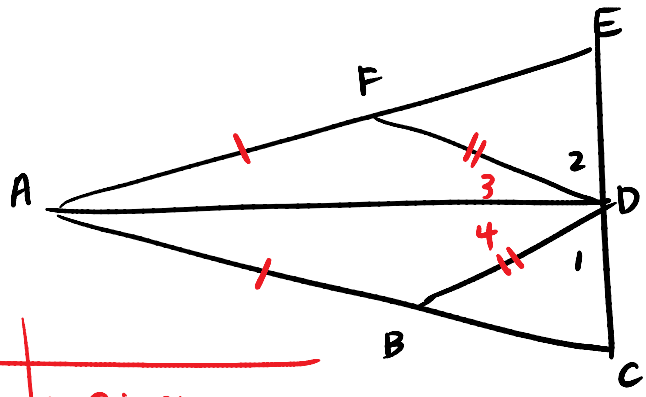
Conc: $\triangle ABE \cong \triangle CBF$



1. $\angle 1 \cong \angle 2 \cong \angle 3 \cong \angle 4$	1. Given
2. $\overline{BE} \cong \overline{BF}$	2. Given
3. $\overline{BD} \cong \overline{BD}$	3. Reflexive prop
4. $\triangle EBD \cong \triangle FBD$	4. SAS
5. $\angle BED \cong \angle BFD$	5. CPCTC
6. $\angle BED$ is supp. to $\angle 6$	6 If 2 $\angle$'s form a str. $\angle$ → $\angle$'s supp.
7. $\angle BFD$ is supp. to $\angle 5$	7. " "
8. $\angle 5 \cong \angle 6$	8. If 2 $\angle$'s are supp to $\cong$ $\angle$'s → $\angle$'s $\cong$
9. $\triangle ABE \cong \triangle CBF$	9. ASA

#15 Given: $\overline{AB} \cong \overline{AF}$
$\overline{BD} \cong \overline{DF}$
$\angle 1 \cong \angle 2$

Conc. $\overline{AD} \perp \overline{CE}$



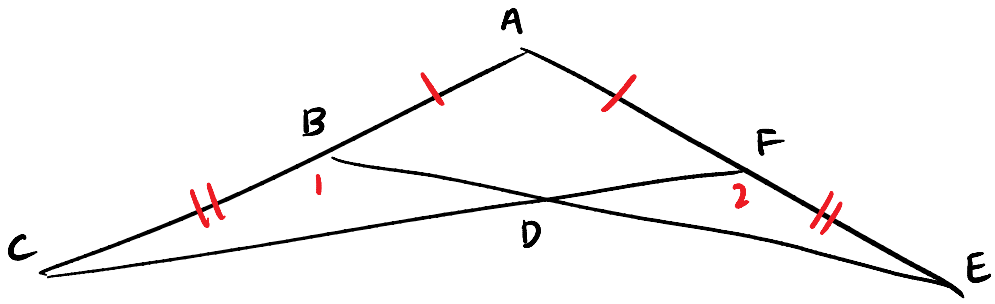
1. $\overline{AB} \cong \overline{AF}$, $\overline{BD} \cong \overline{DF}$	1. Given
2. $\angle 1 \cong \angle 2$	2. Given
3. $\overline{AD} \cong \overline{AD}$	3. Reflexive prop
4. $\triangle AFD \cong \triangle ABD$	4 SSS
5. $\angle 3 \cong \angle 4$	5. CPCTC
6. $\angle EDA \cong \angle CDA$	6. Addition prop.
7. $\angle EDA$ and $\angle CDA$ are $\perp$'s	7. If 2 $\angle$'s are supp + $\cong$ → $\perp$'s
8. $\overline{AD} \perp \overline{EC}$	8. If 2 segs intersects to form $\perp$'s → segs $\perp$

#20

Given: $\overline{AB} \cong \overline{AF}$

$\overline{BC} \cong \overline{FE}$

Conc: $\overline{CD} \cong \overline{DE}$



1. $\overline{AB} \cong \overline{AF}$	1. Given
2. $\overline{BC} \cong \overline{FE}$	2. Given
3. $\overline{AC} \cong \overline{AE}$	3. Addition prop.
4. $\angle A \cong \angle A$	4. Reflexive prop.
5. $\triangle CAF \cong \triangle EAB$	5. SAS
6. $\angle C \cong \angle E$	6. CPCTC
7. $\angle ABD \cong \angle AFD$	7. CPCTC
8. $\angle ABD$ is supp to $\angle 1$	8. If 2 $\angle$s form a str. $\angle$ → $\angle$'s supp
9. $\angle AFD$ is supp to $\angle 2$	9. " "
10. $\angle 1 \cong \angle 2$	10. If 2 $\angle$s are supp to $\cong$ $\angle$s → $\angle$s $\cong$
11. $\triangle BCD \cong \triangle FED$	11. ASA
12. $\overline{CD} \cong \overline{DE}$	12. CPCTC