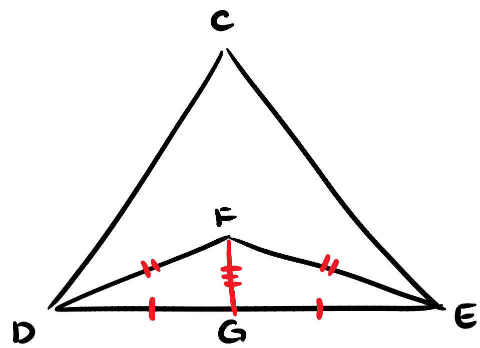
pgs. 136 - 137 #11, 14
pgs. 139 - 140 #1 - 5

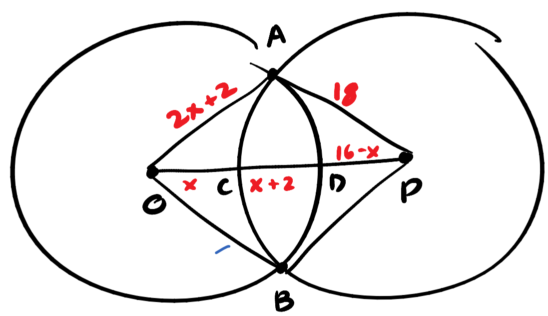


#11 Given: $\overrightarrow{DF}$ bisects $\angle CDE$
$\overrightarrow{EF}$ bisects $\angle CED$
G is the midpt of $\overline{DE}$
$\overline{DF} \cong \overline{EF}$

Prove: $\angle CDE \cong \angle CED$

Statements	Reasons
1. $\overrightarrow{DF}$ bisects $\angle CDE$	1. Given
2. $\overrightarrow{EF}$ bisects $\angle CED$	2. Given
3. G is the midpt of $\overline{DE}$	3. Given
4. $\overline{DG} \cong \overline{GE}$ S	4. If a pt is a midpt → divides the seg. into 2 ≅ segs
5. $\overline{DF} \cong \overline{FE}$ S	5. Given
6 Draw FG	6 2 pts determine a line
7. $\overline{FG} \cong \overline{FG}$ S	7. Reflexive prop
8. $\triangle DFG \cong \triangle EFG$	8. SSS (4, 5, 7)
9. $\angle FDG \cong \angle FEG$	9 CPCTC
10. $\angle CDE \cong \angle CED$	10. If 2 ∠'s are ≅ → their like multiples are ≅ (If 2 ≅ ∠'s x2 → products ≅)

#14 Given: ⊙O and ⊙P
Perimeter of $\triangle AOP = 80$
$OC + DP = 16$
$\overline{CD}$ is 2 units longer than $\overline{OC}$



AO + AP + OC + CD + DP = Perimeter of $\triangle AOP$

Let $OC = x$
$DP = 16 - x$
$CD = x + 2$

because all radii are ≅

$OD = OA = x + x + 2$
$= 2x + 2$

$PC = PA = x + 2 + 16 - x$
$= 18$

$\cancel{x} + x + 2 + 16 - \cancel{x} + 18 + 2x + 2 = 80$
$3x + 38 = 80$
$3x = 42$
$x = 14$

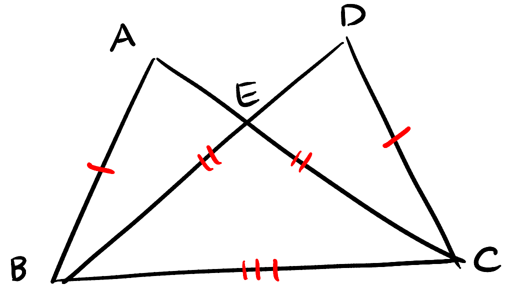
$OB = 30$
$BP = 18$

$OB + BP = 30 + 18$
$= \boxed{48}$

pgs. 139 - 140 #1 - 5

#1 Given: $\overline{AB} \cong \overline{DC}$
$\overline{AC} \cong \overline{DB}$

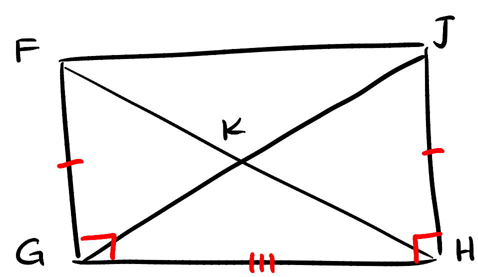
Prove: $\triangle ABC \cong \triangle DCB$



Statements		Reasons
1.) $\overline{AB} \cong \overline{DC}$	(S)	1.) Given
2.) $\overline{AC} \cong \overline{DB}$	(S)	2.) Given
3.) $\overline{BC} \cong \overline{BC}$	(S)	3.) Reflexive property
4.) $\triangle ABC \cong \triangle DCB$		4.) SSS (1, 2, 3)

#2 Given: $\angle FGH$ is a right $\angle$
$\angle JHG$ is a right $\angle$
$\overline{FG} \cong \overline{JH}$

Prove: $\triangle FGH \cong \triangle JHG$

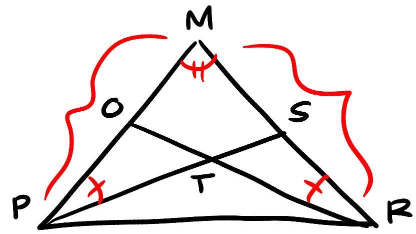


Statements		Reasons
1.) $\angle FGH$ is a right $\angle$		1.) Given
2.) $\angle JHG$ is a right $\angle$		2.) Given
3.) $\angle FGH \cong \angle JHG$	(A)	3.) If 2 $\angle$'s are right $\angle$'s $\Rightarrow$ $\angle$'s $\cong$
4.) $\overline{FG} \cong \overline{JH}$	(S)	4.) Given
5.) $\overline{GH} \cong \overline{GH}$	(S)	5.) Reflexive property
6.) $\triangle FGH \cong \triangle JHG$		6.) SAS (4, 3, 5)

#3 Given: $\overline{PM} \cong \overline{RM}$

$\angle SPM \cong \angle ORM$

Prove: $\triangle PSM \cong \triangle ROM$

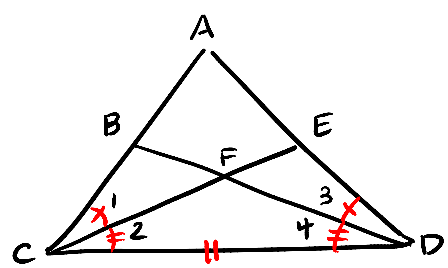


Statements	Reasons
1.) $\overline{PM} \cong \overline{RM}$ S	1) Given
2.) $\angle SPM \cong \angle ORM$ A	2.) Given
3) $\angle M \cong \angle M$ A	3.) Reflexive property
4.) $\triangle PSM \cong \triangle ROM$	4) ASA (2,1,3)

#4 Given: $\angle 1 \cong \angle 3$

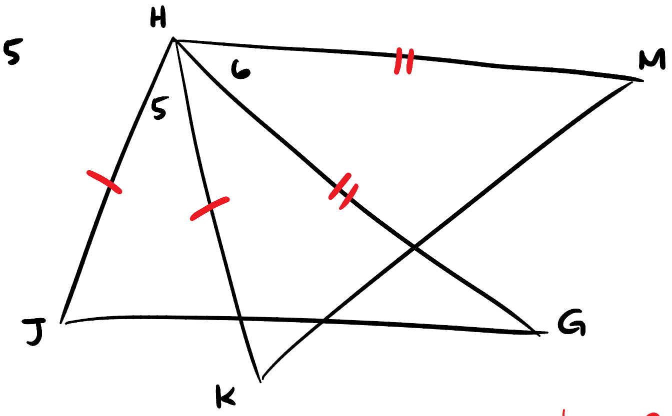
$\angle 2 \cong \angle 4$

Conclusion: $\overline{BC} \cong \overline{ED}$



Statements	Reasons
1.) $\angle 1 \cong \angle 3$	1.) Given
2.) $\angle 2 \cong \angle 4$ A	2.) Given
3.) $\angle BCD \cong \angle EDC$ A	3.) Addition property (If 2 ≅ ∡'s + 2 ≅ ∡'s → sums ≅.)
4.) $\overline{CD} \cong \overline{CD}$ S	4.) Reflexive property
5.) $\triangle BCD \cong \triangle EDC$	5.) ASA (2,4,3)
6.) $\overline{BC} \cong \overline{ED}$	6.) CPCTC

#5



Given: $\overline{JH} \cong \overline{KH}$
$\overline{HG} \cong \overline{HM}$
$\angle 5 \cong \angle 6$

Conc: $\triangle JHG \cong \triangle KHM$

Statements	Reasons
1. $\overline{JH} \cong \overline{KH}$ $\boxed{S}$	1. Given
2. $\overline{HG} \cong \overline{HM}$ $\boxed{S}$	2. Given
3. $\angle 5 \cong \angle 6$	3. Given
4. $\angle JHG \cong \angle KHM$ $\boxed{A}$	4. If the same $\angle$ is added to $\cong$ $\angle$'s → sums are $\cong$
5. $\triangle JHG \cong \triangle KHM$	5. SAS (1, 4, 2)