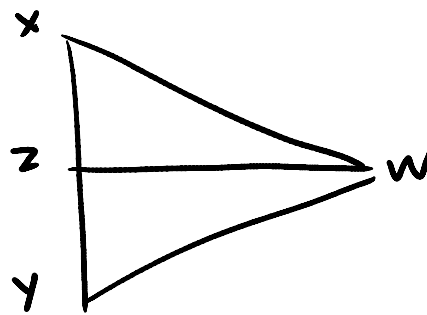


Section 4.4

pg 187: 2, 3, 6, 7-9, 11

2. Given: $\overleftrightarrow{WZ} \perp \text{bis. } \overline{XY}$

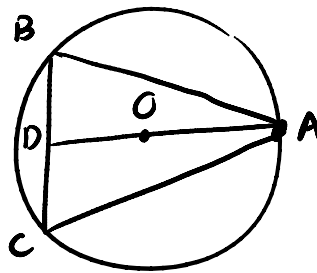
Prove: $\triangle WXY$ is isosceles



| Statements | Reasons |
|---|--|
| 1. $\overleftrightarrow{WZ} \perp \text{bis. } \overline{XY}$ | 1. Given |
| 2. $\overline{WX} \cong \overline{WY}$ | 2. If a point is on the \perp bis. of a seg \rightarrow equidistant from the endpts of the seg |
| 3. $\triangle WXY$ is isos. | 3. If at least 2 sides of a \triangle are $\cong \rightarrow$ isosceles |

3. Given: $\odot O$
 $\overline{AB} \cong \overline{AC}$

conc: $\overleftrightarrow{AD} \perp \text{bis. } \overline{BC}$

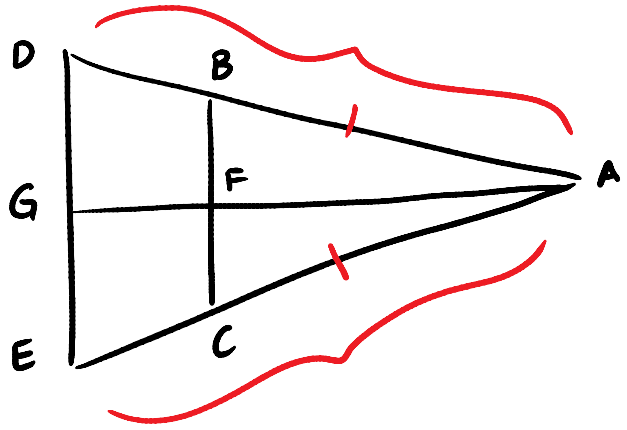


1. $\odot O$
2. DRAW \overline{OB} and \overline{OC}
3. $\overline{OB} \cong \overline{OC}$
4. $\overline{AB} \cong \overline{AC}$
5. $\overleftrightarrow{AD} \perp \text{bis. } \overline{BC}$

1. Given
2. 2 pts determine a line
3. All radii are \cong
4. Given
5. If 2 pts are equidistant from the endpts of a seg \rightarrow determine the \perp bisector of the seg.

6. Given. $\overleftrightarrow{AG} \perp \text{bis. } \overline{BC}$
 $\overleftrightarrow{AG} \perp \text{bis. } \overline{DE}$

Conc: $\overline{BD} \cong \overline{CE}$



1. $\overleftrightarrow{AG} \perp \text{bis. } \overline{BC}$

2. $\overline{AB} \cong \overline{AC}$

3. $\overleftrightarrow{AG} \perp \text{bis. } \overline{DE}$

4. $\overline{AD} \cong \overline{AE}$

5. $\overline{BD} \cong \overline{CE}$

1. Given

2. If a point lies on the \perp bis. of a segment then it is equidistant from the endpoints of the seg

3. Given

4. Same as 2

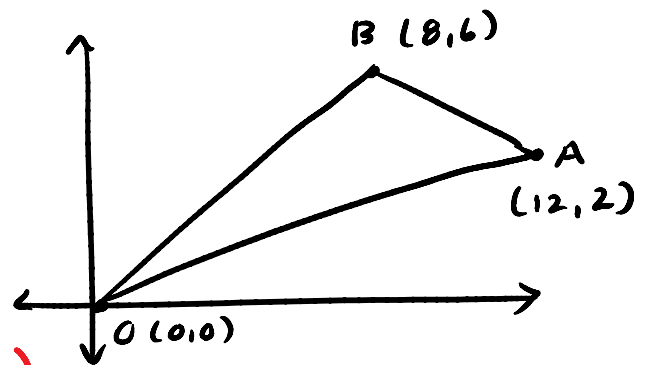
5. Subtraction property

#7 How much greater than the x coordinate of the midpt of \overline{OA} is the x coordinate of the midpt of \overline{AB} ?

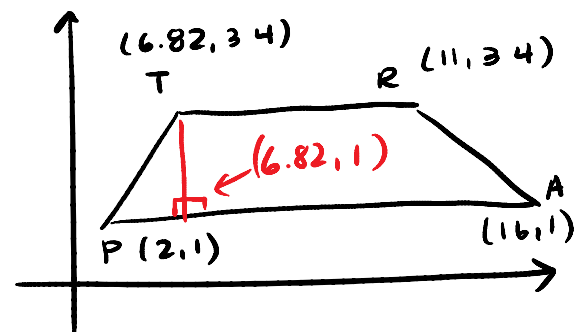
$$\text{midpt } OA = \left(\frac{0+12}{2}, \underline{\quad} \right) = (6, \underline{\quad})$$

$$\text{midpt } AB = \left(\frac{12+8}{2}, \underline{\quad} \right) = (10, \underline{\quad})$$

4 greater

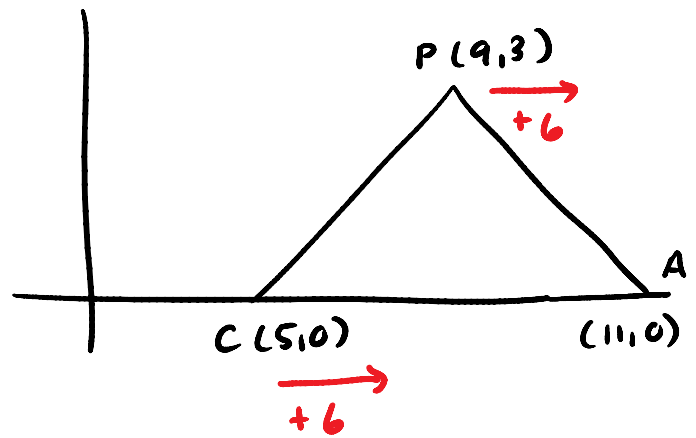


#8 On the graph, if a \perp is drawn from T to \overline{PA} , what will the coordinates of the point where the perpendicular intersects \overline{PA} be?



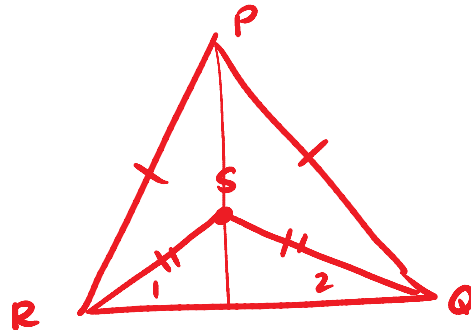
9. If $\triangle CAP$ is slid along the x-axis until C is at $(11,0)$, what will the new coordinates of P be?

$(15,3)$



11. Draw isos $\triangle PQR$, w/ vertex P draw the bisectors of the base \angle 's and label their points of intersection S.

Prove that $\overleftrightarrow{PS} \perp \overleftrightarrow{QR}$



1. $\triangle PQR$ is isos w/ vertex \angle P
2. \overleftrightarrow{SR} bisects \angle PRQ
3. \overleftrightarrow{SQ} bisects \angle PQR
4. $\overline{PR} \cong \overline{PQ}$
5. \angle PRQ \cong \angle PQR
6. \angle 1 \cong \angle 2
7. $\overline{RS} \cong \overline{QS}$
8. $\overleftrightarrow{PS} \perp \overleftrightarrow{QR}$

1. Given
2. Given
3. Given
4. If a \triangle is isos \rightarrow legs \cong
5. If $\triangle \rightarrow \triangle$
6. Division prop
7. If $\triangle \rightarrow \triangle$
8. If 2 pts are equidistant from the endpoints of a seg \rightarrow determine the \perp bis. of the seg.