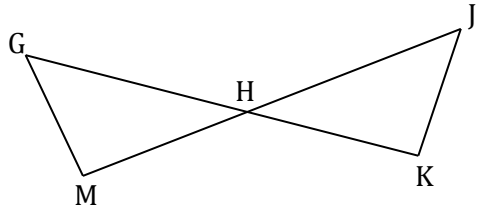
NAME: _____

Ch 7.2 Two Proof-Oriented Triangle Theorems

Pp 304 – 305 (1– 10)

1) Given: $\overline{JM} \perp \overline{GM}$,
$\overline{GK} \perp \overline{KJ}$

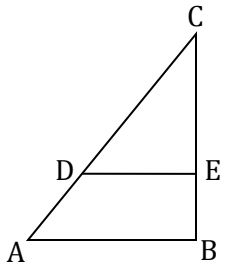
Conclusion: ∡G ≅ ∡J



Statements	Reasons
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____

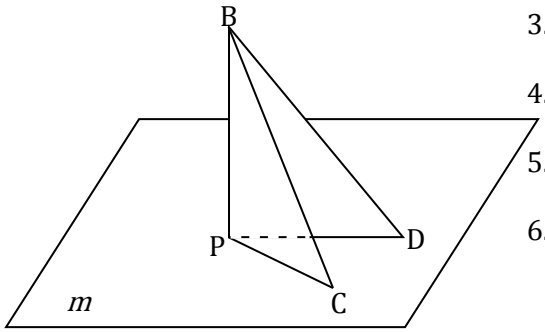
2) $\overline{CB} \perp \overline{AB}$,
$\overleftrightarrow{DE} \parallel \overleftrightarrow{AB}$,
∡CDE = 40⁰

Find: m ∡A, m ∡C, and m ∡CED



3) Given: $\overline{PD}$ and $\overline{PC}$ lie in plane m.
$\overline{BP} \perp$ m,
∡C ≅ ∡D

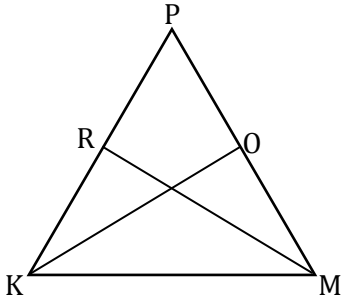
Prove: ∡PBC ≅ ∡PBD



Statements	Reasons
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____

4) Given: $\overline{MR} \perp \overline{KP}$,
$\overline{KO} \perp \overline{PM}$,
∡RKM ≅ ∡OMK

Prove: ΔRKM ≅ ΔOMK

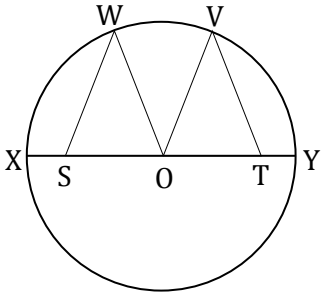


Statements	Reasons
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____

NAME: _____

5) Given: ⊙O,
∡SOV ≅ ∡TOW,
∡WSO ≅ ∡VTO

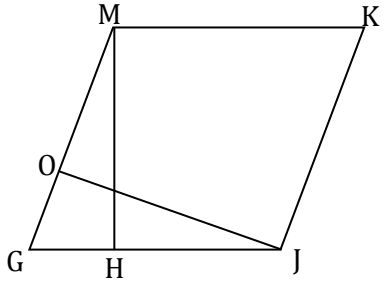
Prove: $\overline{SO} \cong \overline{TO}$



Statements	Reasons
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____
8. _____	8. _____

6) Given: GJKM is a rhombus.
$\overline{OJ} \perp \overline{GM}$,
$\overline{MH} \perp \overline{GJ}$

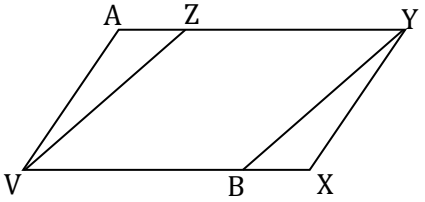
Conclusion: $\overline{MH} \cong \overline{JO}$



Statements	Reasons
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____
8. _____	8. _____
9. _____	9. _____
10. _____	10. _____

7) Given: ∡A ≅ ∡X,
∡AVZ ≅ ∡XYB
∡ZVB ≅ ∡YBX

Prove: VBYZ is a ▱.



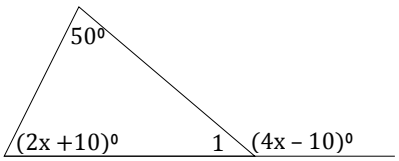
Statements	Reasons
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____
4. _____	4. _____
5. _____	5. _____
6. _____	6. _____
7. _____	7. _____

NAME: _____

8) The measures of the angles of a triangle are in the ratio 3 : 4 : 8. Find the measure of the supplement of the largest angle.

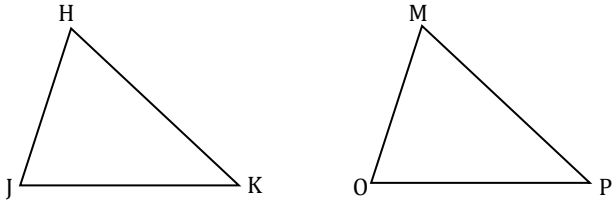
9) Given: Triangle as marked

Find: m∡1



10) Given: ∡J ≅ ∡O,
$\overline{JK} \cong \overline{OP}$,
$\overline{HK} \ncong \overline{MP}$

Prove: ∡H ≇ ∡M



Step 1:

Step 2:

Step 3:

Step 4: