

#1-5, Name the correct postulate/property/theorem demonstrated.

- If $\angle ABC$ is right, then $m\angle ABC = 90$.
- $m\angle ABC = m\angle ABC$.
- If Y is between X and Z, then $ZY + YX = XZ$.
- If $x = y - 1$ and $y - 1 = 6$, then $x = 6$.
- If H is the midpoint of \overline{AB} , then $\overline{AH} \cong \overline{HB}$.

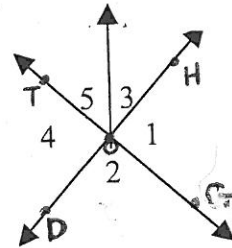
#6-10, Write the statement that might follow in a proof using the given info and the property listed.

- If $m\angle X = 120$, and $m\angle X = m\angle A + m\angle B$, then _____ (Substitution Prop.)
- If $\frac{1}{2}(YZ) = BV$, then _____ (Multiplication Prop. =)
- If $t = h$ & $h = p$, then _____ (Transitive Prop.)
- If $x = y + 3$ and $x = p + 1$, then _____ (Substitution Prop.)
- If $AC - BG = NH - BG$, then _____ (Addition Prop. =)

11. Fill in the correct justifications for each step of proof.

Given: $m\angle 3 = 45$, $m\angle 5 = 45$

Prove: $\angle 2$ is right.



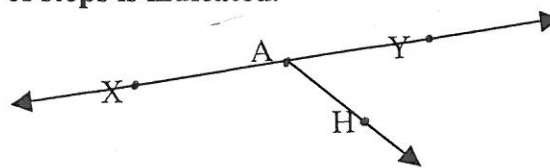
Statements	Reasons
1. $m\angle 3 = 45^\circ$	1.
2. $m\angle 5 = 45^\circ$	2.
3. $\angle 3 + \angle 5 = \angle HOT$	3.
4. $\angle HOT = \angle 2$	4.
5. $\angle 3 + \angle 5 = \angle 2$	5.
6. $45 + 45 = m\angle 2$	6.
7. $90 = m\angle 2$	7.
8. $\angle 2$ is a right angle	8.

#12-14, Write your own proof. The approximate number of steps is indicated.

12. Given: $\angle XAY$ is a straight angle.

$$m\angle YAH = 50^\circ$$

Prove: $m\angle XAH = 130^\circ$



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

13. Given: $\angle 1$ and $\angle 2$ form a linear pair.

$$m\angle 2 = 2(m\angle 1)$$

Prove: $m\angle 1 = 60$

Proof:

Statements	Reasons
a.	a.
b.	b.
c.	c.
d.	d.
e.	e.
f.	f.

14. Given: B is midpt of \overline{AC} , C is midpt. of \overline{BD}

Prove: $AB \cong CD$



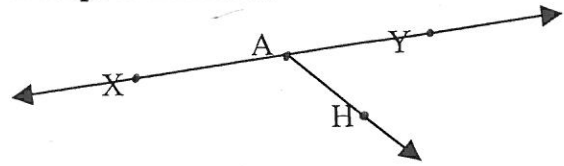
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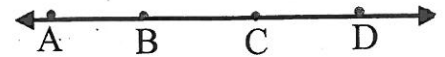
Prove: $m\angle 1 = 60$

Proof:

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a.	a.
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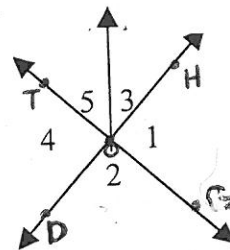
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11. Fill in the correct justifications for each step of proof.

Given: $m\angle 3 = 45$, $m\angle 5 = 45$

Prove: $\angle 2$ is right.



Statements	Reasons
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2. $m\angle 5 = 45^\circ$	2.
3. $\angle 3 + \angle 5 = \angle HOT$	3.
4. $\angle HOT = \angle 2$	4.
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