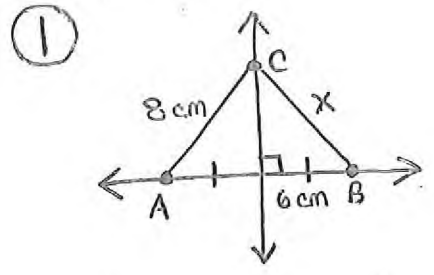
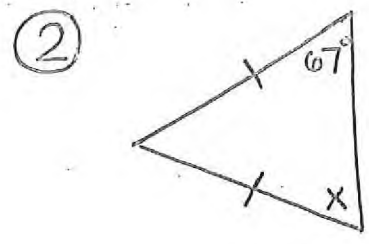


Triangle + Perpendicular Bisector Theorem Practice

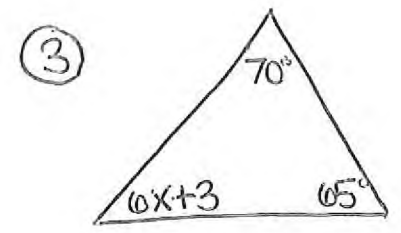
State the theorem that you would use to find x . Then find x . (show your work.)



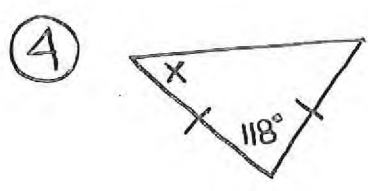
Theorem:
Find x :



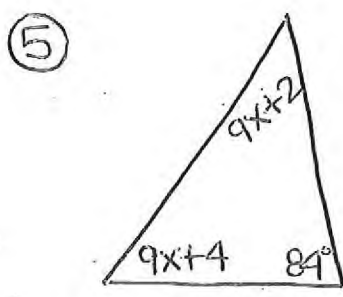
Theorem:
Find x :



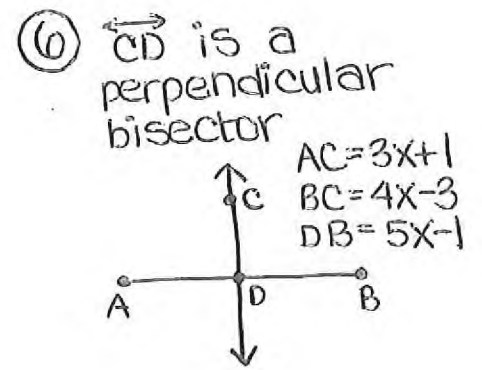
Theorem:
Find x :



Theorem(s):
Find x :



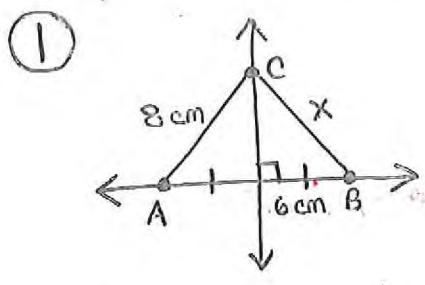
Theorem:
Find x :



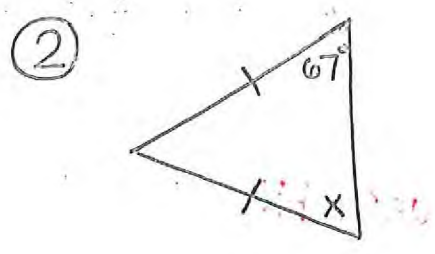
Theorem:
Find x :

Triangle + Perpendicular Bisector Theorem Practice

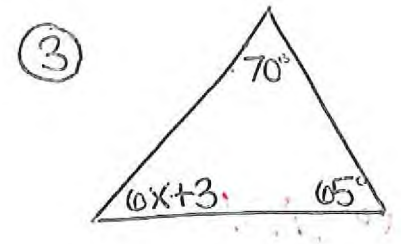
State the theorem that you would use to find x . Then find x . (show your work.)



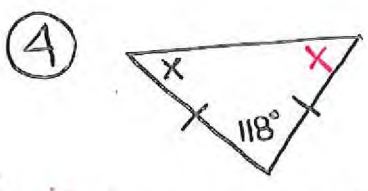
Theorem: **Perpendicular Bisector Theorem**
 Find x :
 $x = 8$



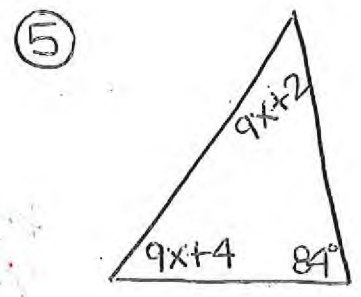
Theorem: **Isosceles Triangle Theorem**
 Find x :
 $x = 67^\circ$



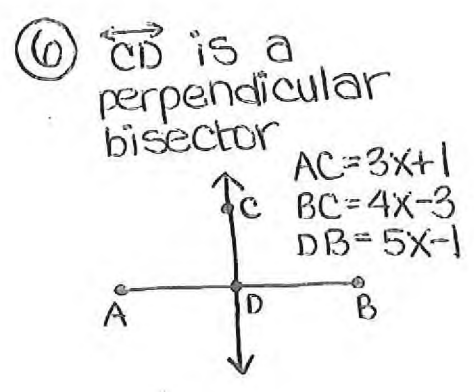
Theorem: **Triangle Sum Theorem**
 Find x :
 $70 + 6x + 3 + 65 = 180$
 $6x + 138 = 180$
 $6x = 42$
 $x = 7$



Theorem(s): **Isosceles Triangle + Triangle Sum Theorem**
 Find x :
 $x + x + 118 = 180$
 $2x + 118 = 180$
 $2x = 62$
 $x = 31$



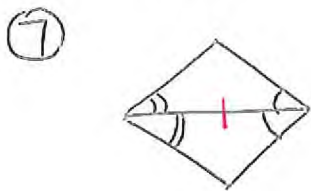
Theorem: **Triangle Sum Theorem**
 Find x :
 $9x + 2 + 84 + 9x + 4 = 180$
 $18x + 90 = 180$
 $18x = 90$
 $x = 5$



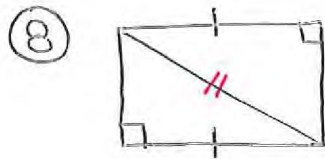
Theorem: **Perpendicular Bisector Theorem**
 Find x :
 $AC = BC$
 $3x + 1 = 4x - 3$
 $-x + 1 = -3$
 $-x = -4$
 $x = 4$

Review

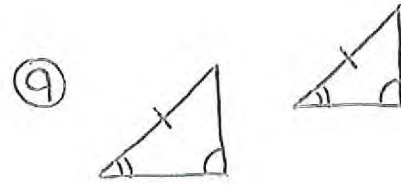
Are the triangles congruent? If they are, state how you know.



yes, ASA

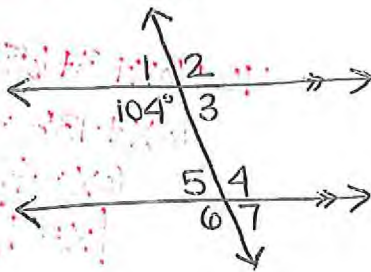


yes, HL



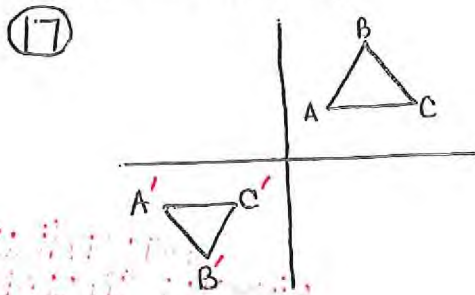
yes, AAS

Find the measure of each angle.



- ⑩ $m\angle 1 = 104^\circ$
- ⑪ $m\angle 2 = 76^\circ$
- ⑫ $m\angle 3 = 76^\circ$
- ⑬ $m\angle 4 = 104^\circ$
- ⑭ $m\angle 5 = 76^\circ$
- ⑮ $m\angle 6 = 104^\circ$
- ⑯ $m\angle 7 = 76^\circ$

Determine if the figures are congruent. Explain why or why not. (Use the definition of congruence in terms of rigid motions.)

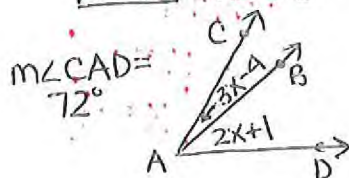


* Assume the figures are the exact same shape + size!

Yes, $\triangle ABC$ was reflected over the x-axis + translated left to create $\triangle A'B'C'$.

Complete the proof using a two-column proof.

- ⑱ Given: \overline{AB} is in the interior of $\angle CAD$.
 Prove: $x = 15$



statements	Reasons
\overline{AB} is in the interior of $\angle CAD$	Given
$m\angle CAB + m\angle BAD = m\angle CAD$	Angle Addition Postulate
$3x - 4 + 2x + 1 = 72$	Substitution Prop of =
$5x - 3 = 72$	Simplify
$5x = 75$	Addition Prop of =
$x = 15$	Division Prop of =