

⊥ Lines HW Key

① a) $90 - x$ b) $180 - x$

- ② Reasons :
1. Given
 2. Angle Add. Post.
 3. Substitution Prop or Simplification
 4. Division Prop

Statement #5: $l \perp n$

③ If ext sides of 2 adj. \angle s \perp , \angle s are compl.

④ \perp lines form rt. \angle s.

⑤ " " " " "

⑥ Compl. \angle s are 2 \angle s w/ total of 90° .

⑦ \perp lines form rt \angle s.

⑧ If 2 lines form \cong adj. \angle s, lines are \perp .

⑨ 35

⑩ 13

⑪ 20

⑫ 9

- ⑬ 1. Given
 3. Angle Add. Post.
 4. $m\angle AOB + m\angle BOC = 90$
 5. $\angle AOB$ & $\angle BOC$ are Compl. \angle s.

⑭ $x + 90$

⑮ $180 - y$

⑯ $x + y$

⑰ $90 - (x + y)$

⑱ Yes

⑲ NO

⑳ NO

㉑ NO

㉒ NO

㉓ Yes

㉔ Yes

㉕ NO

⑳ Answers may vary.
 $m\angle 1 = 45$ $m\angle 4 = 45$
 $\angle 1 \cong \angle 2$ $\angle 3 \cong \angle 4$

$\triangle DAC$ rt. \triangle

$\triangle ECA$ rt. \triangle .

$\overline{AD} \perp AC$

$CE \perp AC$

$\angle 1$ & $\angle 2$ Compl.

$\angle 3$ & $\angle 4$ Compl.

㉖ $\triangle DAC$ is rt.
 $\triangle ACE$ is rt.
 $m\angle DAC = 90$
 $m\angle ACE = 90$
 $m\angle 3 = m\angle 2$