

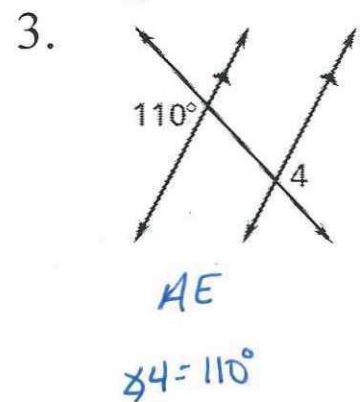
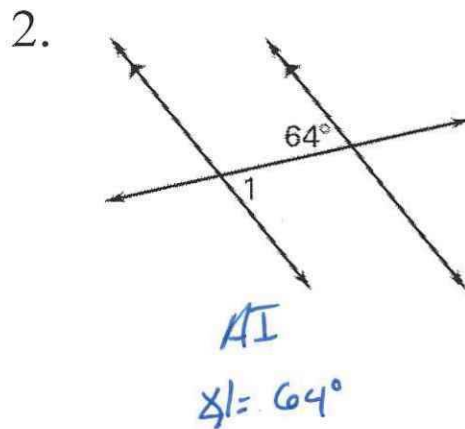
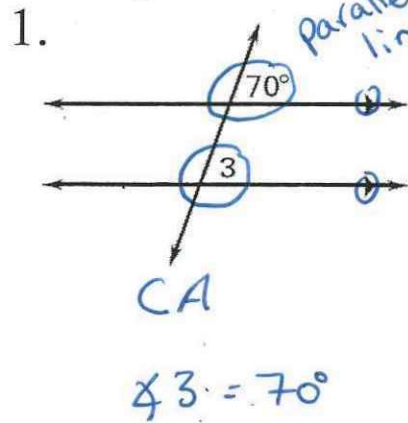
3-4 Parallel Lines and Transversals

Objective:

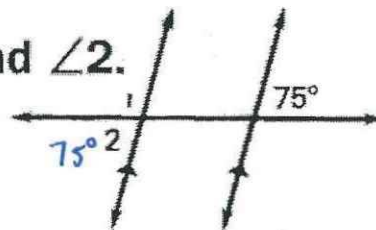
If two parallel lines are cut by a transversal, then:

1. $LA \cong$
(Corresponding Angles Postulate)
2. $AI \cong$
(Alternate Interior Angle Theorem)
3. $AE \cong$
(Alternate Exterior Angle Th)
4. \underline{SSI} are supplementary
(Same-Side Int Angle Th)

Examples: Find the measures of the numbered angles.



4. Find the measures of $\angle 1$ and $\angle 2$.



$$\angle 1 =$$

$$\angle 2 = 75^\circ$$

$$\angle 1 + \angle 2 = 180$$

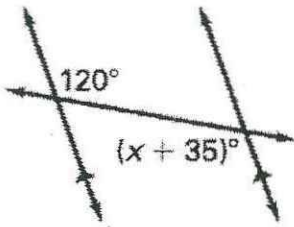
$$\angle 1 + 75 = 180$$

$$\angle 1 = 105^\circ$$

$\angle 2$ & 75° are AE

Find the value of x.

5.

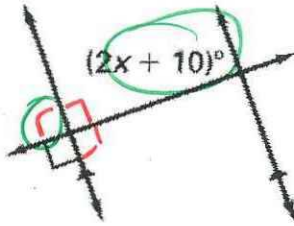


AI

$$\begin{array}{r} x + 35 = 120 \\ -35 \quad -35 \\ \hline \end{array}$$

$$x = 85^\circ$$

6.



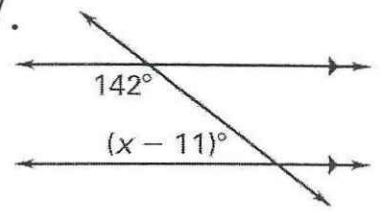
CA

$$\begin{array}{r} 2x + 10 = 90 \\ -10 \quad -10 \\ \hline \end{array}$$

$$2x = 80$$

$$x = 40$$

7.



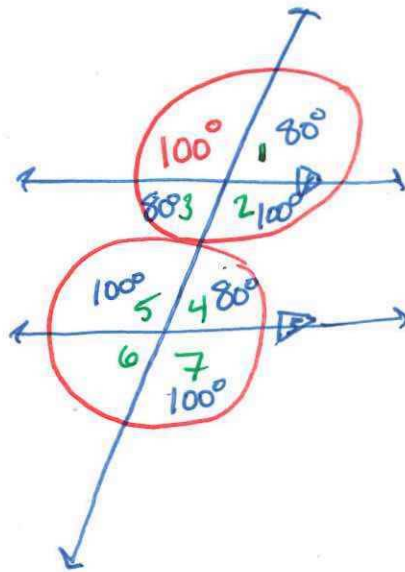
SSI

$$\begin{array}{r} x - 11 + 142 = 180 \\ \hline \end{array}$$

$$\begin{array}{r} x + 131 = 180 \\ -131 \quad -131 \\ \hline \end{array}$$

$$x = 49$$

8.



$$\sphericalangle 1 = 80^\circ$$

$$\sphericalangle 2 = 100^\circ$$

$$\sphericalangle 3 = 80^\circ$$

$$\sphericalangle 4 = 80^\circ$$

$$\sphericalangle 5 = 100^\circ$$

$$\sphericalangle 6 = 80^\circ$$

$$\sphericalangle 7 = 100^\circ$$

Assignment:

P132 # 14-35