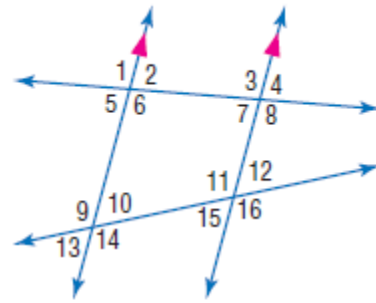


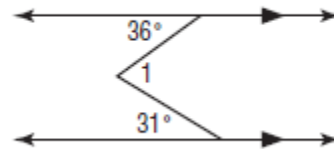
In the figure, $m\angle 3 = 110$ and $m\angle 12 = 55$. Find the measure of each angle.

1. $\angle 1$ 2. $\angle 6$ 3. $\angle 2$

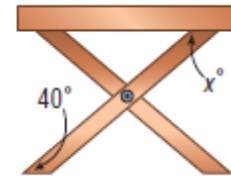


4. **STANDARDIZED TEST PRACTICE** What is $m\angle 1$?

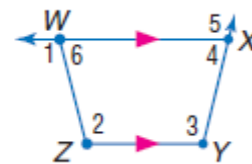
- A 5° C 36°
B 31° D 67°



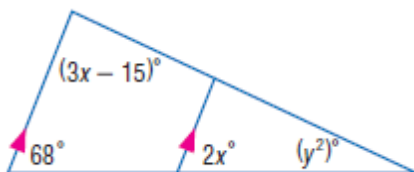
5. **CARPENTRY** Anthony is building a picnic table for his patio. He cut one of the legs at an angle of 40° . At what angle should he cut the other end to ensure that the top of the table is parallel to the ground? Explain.



6. **CHALLENGE** Explain why you can conclude that $\angle 2$ and $\angle 6$ are supplementary, but you cannot state that $\angle 4$ and $\angle 6$ are necessarily supplementary.



7. Find x and y .



Answer Key

1. 110
2. 110
3. 70
4. D
5. 140°
6. $\angle 2$ and $\angle 6$ are supplementary because WX and ZY are parallel lines and WZ is the transversal, so you can use the consecutive interior angles theorem. $\angle 4$ and $\angle 6$ are not necessarily supplementary because WZ and XY are not necessarily parallel, so the theorem cannot apply.
7. $x = 34, y = \pm 5$