Practice Run
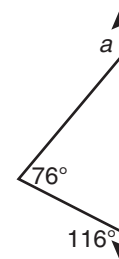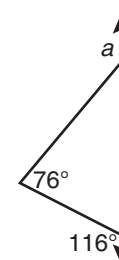
Determine the measure of $\angle a$ in the following diagram. Explain your reasoning.
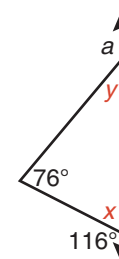
76°

116°
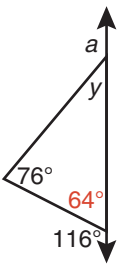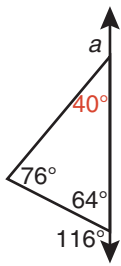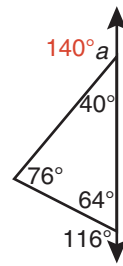
a

Compare your answers.

Determine the measure of $\angle a$ in the following diagram. Explain your reasoning.

76°

116°

a

Label the unknowns in the diagram provided.

76°

116°

a

y

x

Angles forming a line sum to 180°	Angles in a triangle sum to 180°	Angles forming a line sum to 180°
a 76° 64° 116° *y*	*a* 40° 76° 64° 116°	140° *a* 40° 76° 64° 116°
$116° + x = 180°$	$64° + 76° + y = 180°$	$40° + a = 180°$
$x = 180° - 116°$	$y = 180° - 64° - 76°$	$a = 180° - 40°$
$x = 64°$	$y = 40°$	$a = 140°$