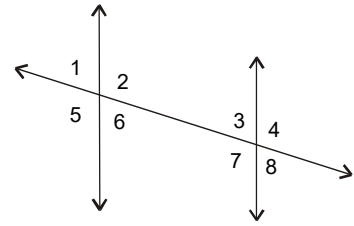
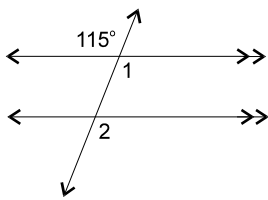


GEOMETRY 3: PARALLEL LINES & TRANSVERSALS

1. From the diagram, list all the pairs of:
 - a. alternate interior angles
 - b. interior angles on the same side of the transversal
 - c. corresponding angles

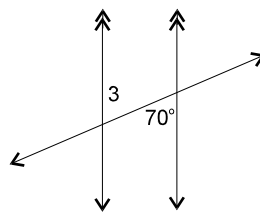


2. Determine the indicated angles in each drawing below. State the reasons for each answer.



$\angle 1 =$

$\angle 2 =$

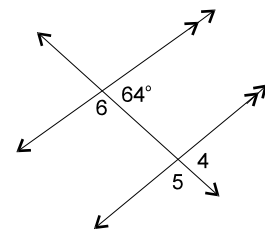


$\angle 3 =$

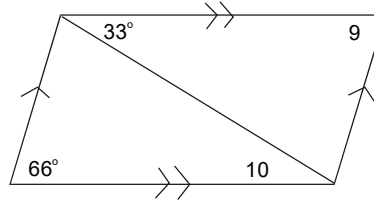
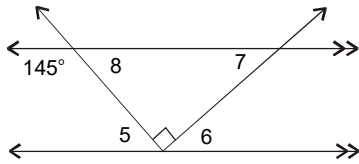
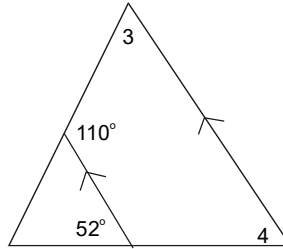
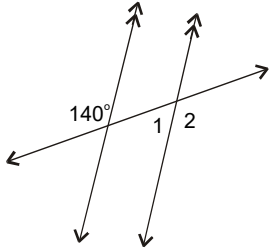
$\angle 4 =$

$\angle 5 =$

$\angle 6 =$



3. Determine the indicated angles in each of the drawings below.



$\angle 1 =$

$\angle 2 =$

$\angle 3 =$

$\angle 4 =$

$\angle 5 =$

$\angle 6 =$

$\angle 7 =$

$\angle 8 =$

$\angle 9 =$

$\angle 10 =$

ANSWER KEY

1. a. $\angle 2$ and $\angle 7$, $\angle 3$ and $\angle 6$ b. $\angle 2$ and $\angle 3$, $\angle 6$ and $\angle 7$
 c. $\angle 1$ and $\angle 3$, $\angle 2$ and $\angle 4$, $\angle 5$ and $\angle 7$, $\angle 6$ and $\angle 8$
2. $\angle 1 = 115^\circ$ vertically opposite
 $\angle 2 = 115^\circ$ corresponding to $\angle 1$
 $\angle 3 = 70^\circ$ alt int \angle to 70°
 $\angle 4 = 64^\circ$ corr \angle to 64°
 $\angle 5 = 116^\circ$ supp \angle to $\angle 4$
 $\angle 6 = 116^\circ$ corr \angle to $\angle 5$ or supp \angle to 64°
3. $\angle 1 = 40^\circ$ $\angle 2 = 140^\circ$ $\angle 3 = 70^\circ$ $\angle 4 = 52^\circ$ $\angle 5 = 35^\circ$
 $\angle 6 = 55^\circ$ $\angle 7 = 55^\circ$ $\angle 8 = 35^\circ$ $\angle 9 = 66^\circ$ $\angle 10 = 33^\circ$

Source: Government of BC used with permission.