

Answers

1. 140° ; $\angle 8$ and the given angle are alternate exterior angles.
2. 140° ; $\angle 8$ and $\angle 5$ are vertical angles.
3. 40° ; $\angle 8$ and $\angle 7$ are supplementary.
4. 40° ; $\angle 2$ and the given angle are supplementary.

Answers

5. $41^\circ, 49^\circ, 90^\circ$
6. $35^\circ, 35^\circ, 110^\circ$
7. 125°
8. 110°
9. $77^\circ, 60^\circ, 128^\circ, 95^\circ$
10. $110^\circ, 135^\circ, 125^\circ, 135^\circ, 105^\circ, 150^\circ, 140^\circ$
11. $125^\circ, 100^\circ, 120^\circ, 60^\circ, 250^\circ, 65^\circ$
12. $135^\circ, 100^\circ, 125^\circ$
13. $60^\circ, 60^\circ, 60^\circ, 60^\circ, 60^\circ, 60^\circ$
14. yes; The triangles have the same angle measures, 90° , 68° , and 22° .
15. yes; The triangles have two pairs of congruent angles.