10–2 **Skills Practice**

Diagonals and Angle Measure

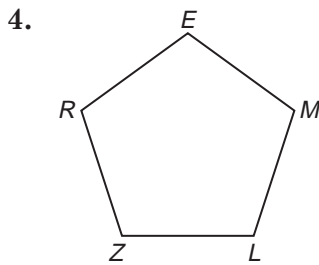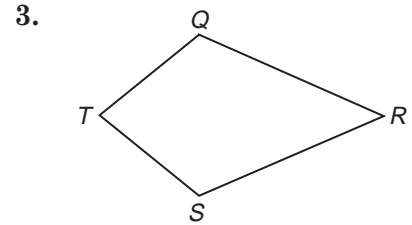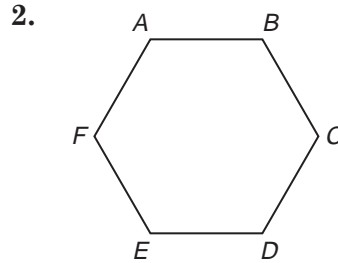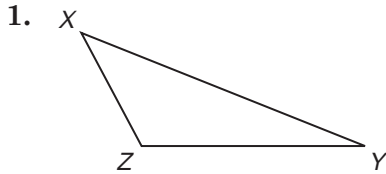**Find the sum of the measures of the interior angles in each figure.**

1.

2.

3.

4.

5.

6.
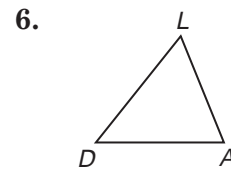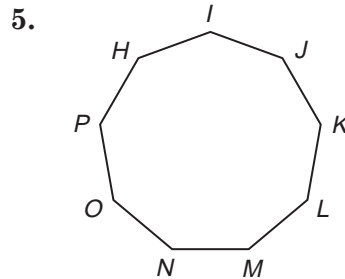
Find the measure of one interior angle and one exterior angle of each regular polygon. If necessary, round to the nearest degree.

7. triangle

8. octagon

9. decagon

10. nonagon

11. quadrilateral

12. hexagon

13. The sum of the measures of three interior angles of a quadrilateral is 245. What is the measure of the fourth interior angle?

14. The sum of the measures of six exterior angles of a heptagon is 310. What is the measure of the seventh exterior angle?

15. The sum of the measures of seven interior angles of an octagon is 1000. What is the measure of the eighth interior angle?

16. The sum of the measures of nine exterior angles of a decagon is 325. What is the measure of the tenth exterior angle?