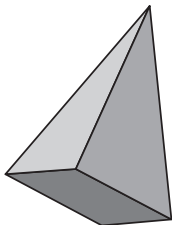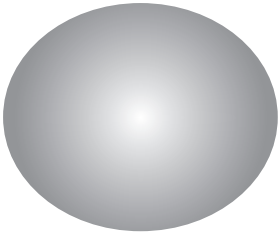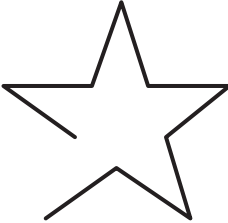# ⊞ Lesson 1 Assignment

Angle Properties of Polygons

Work slowly and carefully. If you are having difficulty, go back and review the appropriate *Lesson*.

For full marks, show all calculations, steps, and/or explain your answers.
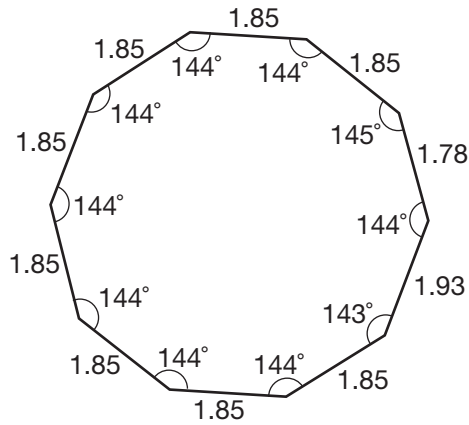
Total: 20 marks.

(4)   1.   Identify which of the following figures below are polygons. Explain.

2.　Name the following polygons. Are the following polygons regular or irregular? Explain.

(3)　　　a.

1.85
1.85　144°　144°　1.85
144°
1.85　　　　　　145°
1.78
144°
144°
1.85
144°　　　　　1.93
143°
1.85　144°　144°
1.85
1.85

Name:

Regular or Irregular:

Explanation:

(3)　　　b.

2.05
2.05　140°　140°　2.05
140°　　　　140°
2.05　　　　　　　　2.05
140°　　　　140°
2.05　　　　　　　2.05
140°　　　　140°
140°
2.05　　　2.05
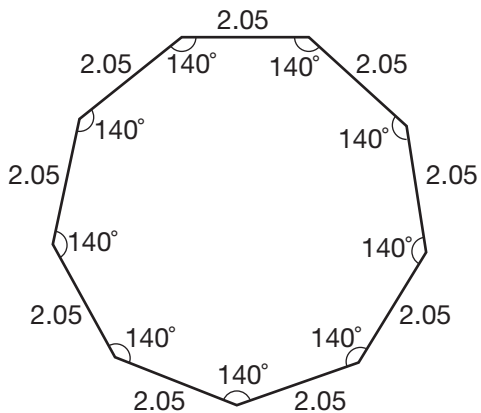
Name:

Regular or Irregular:

Explanation:

3.   Identify each shape as a convex polygon, concave polygon or neither. Explain.
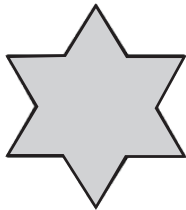
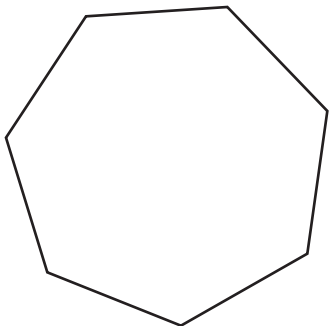(2)   a.

Shape:

Explanation:
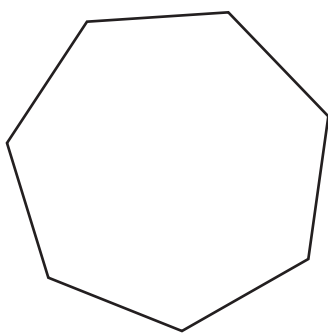
(2)   b.

Shape:

Explanation:

4. Use the picture of the heptagon to complete the following questions.

(1)   a. Starting at any vertex in the heptagon, draw all the diagonals in the shape that include that vertex.

(1)   b. Using the information from *part a*, determine the sum of the interior angles in a heptagon.

(2)   5.   Determine the sum of the interior angles of an 11-sided figure.

(2)   6.   Find the measure of one of the angles in a regular 12-sided polygon.