Lesson 3 Assignment

Practical Applications

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

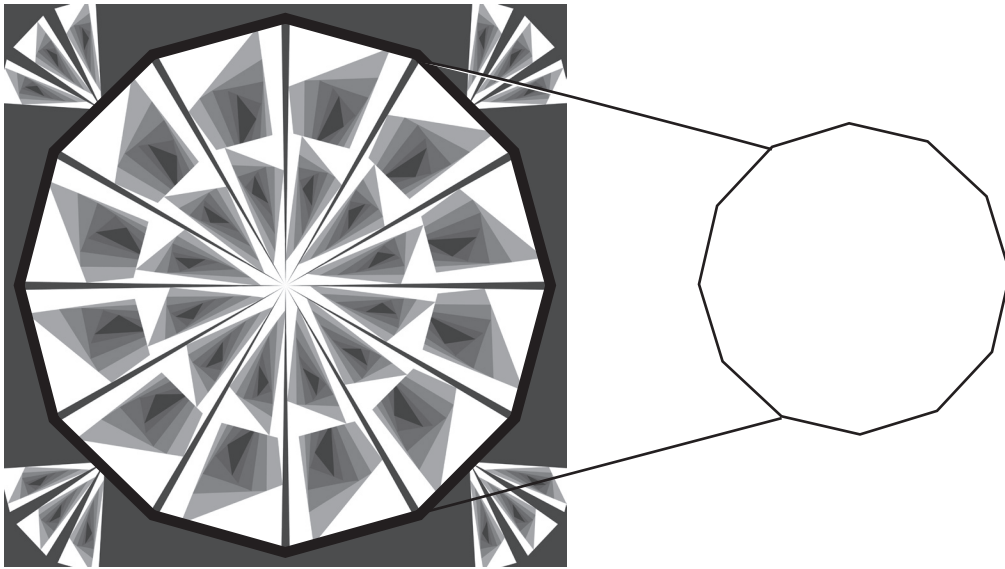For full marks, show all calculations, steps, and/or explain your answers.

Total: 19 marks.

1. For the diagram below, answer the following questions.

(1)   a. Name polygons A and B.

(1)   b. Which polygon is irregular: A or B? Explain your reasoning.

(1)   c. Find the angle measure of one of the angles in polygon A.

2.   Given the painting, answer the following questions.
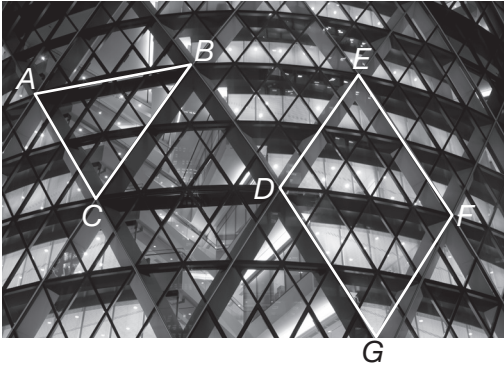

(1)   a. Name the polygon that is outlined.

(2)   b. Find the sum of the interior angles in the polygon.

②   3.   Find $\angle D$ in triangle DEF.

4. The following building was constructed from the triangle shape.
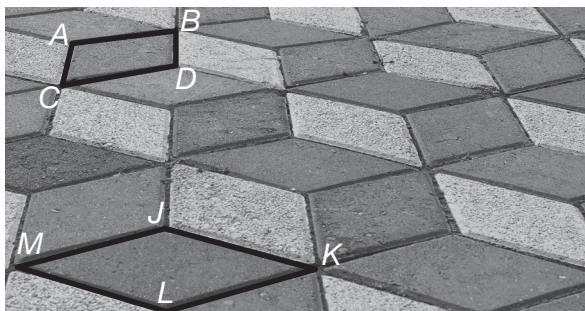

(1)

a. Triangle ABC has equal side lengths. Identify the type of triangle and state the measure of $\angle C$.
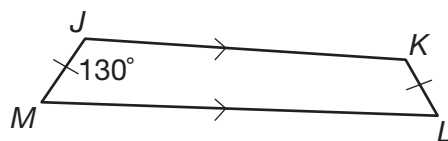
(1)

b. Find $\angle D$ in quadrilateral $DEFG$.

5. Use the diagram below to answer the following questions.

1   a. Quadrilateral $ABCD$ has side lengths of $5\,cm$ and $10\,cm$. Quadrilateral $JKLM$ has equal side lengths of $10\,cm$. Name the two polygons.

2   b. If $\angle J = 140°$, find $\angle M$.

1   c. State one pair of parallel lines in quadrilateral $ABCD$.

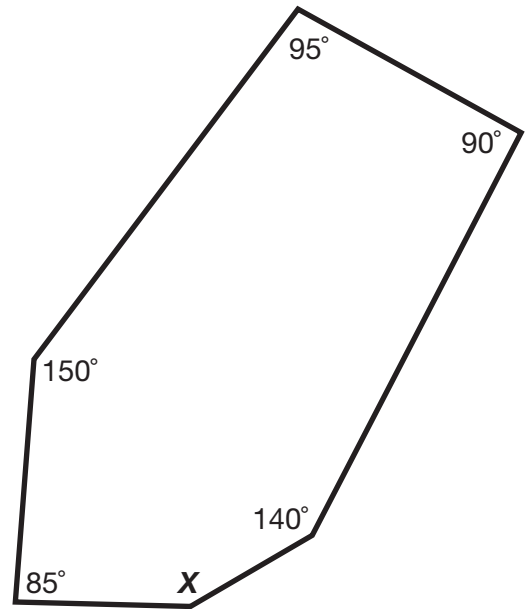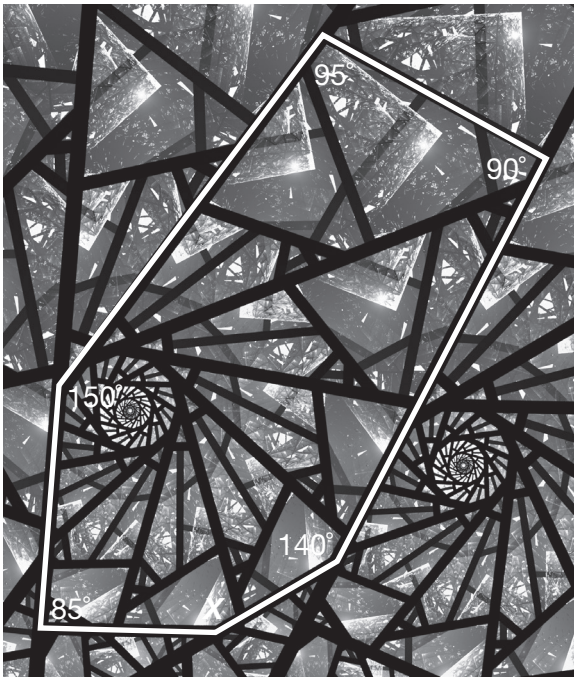1   d. Name one pair of equal angles in quadrilateral $ABCD$.

(2)

6. The bridge below contains structures in the shape of isosceles trapezoids. $JK = 100$ m, $LM = 110$ m, $JM = 20$ m, and $\angle J = 130°$. Find the angle measure of $\angle L$.

(2)

7. Exact angle measurements are required to make stained glass pictures.

Find the missing angle, X, in the polygon.