

Name: \_\_\_\_\_

1. (a) Construct a triangle ABC such that:

$$\overline{AB} = 5 \text{ cm}, \angle BAC = 60^\circ \text{ and } \overline{AC} = 4 \text{ cm}$$

- (b) Measure the length of  $\overline{BC}$  and the angles  $\angle ABC$  and  $\angle ACB$ .

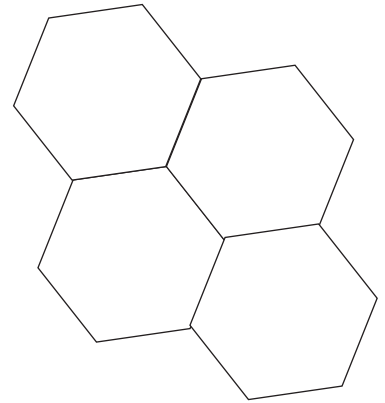
$\overline{BC} =$	$\angle ABC =$	$\angle ACB =$
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2. (a) Construct a triangle PQR such that:

$$\overline{PQ} = 5 \text{ cm}, \angle RPQ = 100^\circ \text{ and } \angle PQR = 40^\circ$$

- (b) Construct the perpendicular bisectors of each side of the triangle.  
 (c) Find the point where the perpendicular bisectors meet.  
 (d) Use this point as the centre of a circle and draw a circle that passes through the points P, Q and R.

3. Add several more hexagons to this pattern and colour in.



3. Construct this shape which consists of a square with its vertices touching a circle which is inside a regular hexagon. Start the shape with a regular hexagon that has sides of length 4 cm.

