



# Geometry & Measurement Student Activity

## Polygons 4

This worksheet reviews the concepts of polygons from the Gr. 9 math program. Use these questions to test your understanding.

1. Construct the following polygons.

a) a rhombus with an acute angle of 70 degrees and edges of 3cm.

b) a rectangle with the sides measuring 2cm and its lengths 2.5X the sides

c) a parallelogram where the largest angle is 114 degrees and the longest edge is 6 centimetres

2. Read the following statements. Either refute or justify them using examples.

a) All similar triangles are congruent.

b) All congruent triangles are similar.

3. A Lego competition had the competitors build a miniature replica of the Empire State Building. The actual building is about 440m in height. The width along one face is 129m. The winning design has a finished height of 275cm. What was the width of the structure? Show your work.

4. Construction two similar hexagons with a scale of 1:2.5.

5. A 70m tall cellular tower has a supporting cable staked 8m from its base. A larger 120m tower also has a supporting cable. How far is it from the second tower's base?