**9SS4 V1 Shape and Space – Scale Diagrams**

**Part I:**

1. Determine the scale factor for the diagram to the right.
2. A circle has a diameter of 56 cm. The diameter of the reduction is 7 cm. Determine the scale factor.

**Part II:**

1. A drawing of a regular hexagon has side lengths of 1.4 cm and angles of 120°. The drawing is enlarged by a scale factor of 2.5. Draw the scale diagram.
2. A drawing that is 8 cm by 12 cm is enlarged to fit on a poster that measures 45 cm by 75 cm. What scale factor for the enlargement would result in the largest possible drawing that still fits on the poster?

**Part III:**

1. The dimensions of a rectangular prism each double. What will the scale factor of the volumes be?