1. Draw a sketch showing the radius, angle and arc length of a circle. Write the equation that relates the three parameters.

2. Draw a sketch showing the radius, angle and area of a circular sector. Write the equation that relates the three parameters.

3. (a) Draw an arbitrary triangle that is not a right triangle. Label the length of the sides “a”, “b” and “c” and the angle between “a” and “b” as “θ”. What is the name of the equation that relates the four parameters? Take a stab at writing the equation.

(b) Redraw the triangle above and write the equation to calculate the area inside the triangle. Label your sketch as needed.

(c) Redraw the same triangle again and label the inside angles. Write an equation relating these three angles.

4. Draw a right triangle below. Label one of the angles that is not 90°. Label the sides of the triangle as “hypotenuse”, “opposite” and “adjacent”. Write the three formulas that relate these quantities: sine, cosine, and tangent.