**Core 4 Assessment 2 – Coordinate Geometry in the (x,y) plane**

1. Find the cartesian equation of the curve given by the parametric equations

x = t3/2 and y = 4t3

**(3 marks)**

1. The curve with parametric equations

x = 4t and y = 4 , t ≠ 0

meets the curve 2y2 + x = 0 at point P.

Find the coordinates of P.

**(4 marks)**

1. A circle has parametric equations

x = cosϴ - 5 and y = sinϴ + 3, 0 ≤ ϴ ≤ 2π

Find the cartesian equation of the circle.

**(3 marks)**

1. A curve has parametric equations

x = t2 – 1 and y = ½ (t - t3)

1. Draw a graph of the curve for -2 ≤ t ≤ 2

**(3 marks)**

1. Find the area of the finite region enclosed by the loop of the curve

**(3 marks)**

**Total = 16 marks**