

C2 June 2006

1)  $81x^4 - 216x^3 + 216x^2 - 96x + 16$

2i)  $u_2 = -1, u_3 = 2, u_4 = -1$       ii) 50

3)  $y = 4x^{\frac{1}{2}} - 3$

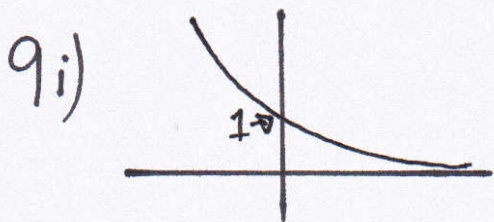
4i)  $x = -2, 1$       ii)  $4\frac{1}{2}$

5i)  $x = 60^\circ, 180^\circ$       ii)  $x = 67.5^\circ, 157.5^\circ$

6ia) £1,295    b) £167,400      ii) £124,359

7i) Show      ii)  $22.1 \text{ cm}^2$       iii)  $25.3 \text{ cm}$

8i)  $a = 5, b = -7$       ii)  $Q = 2x^2 + x - 9, r = 8$



ii)  $A \approx 1.09$       iii) Prove