

C1 June 2009

1i) $5x^4 - 2x^{-3}$

ii) $20x^3 + 6x^{-4}$

2) $-3 + 2\sqrt{7}$

3i) 3^{-2}

ii) $3^{\frac{1}{3}}$

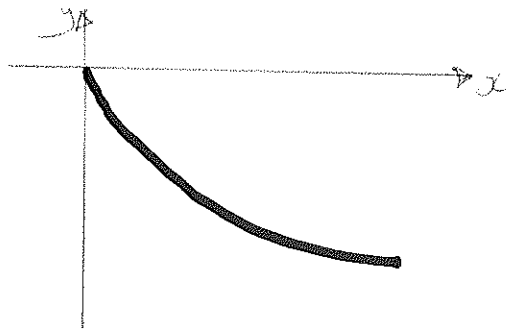
iii) 3^{40}

4) $(\frac{1}{2}, -3)$ $(\frac{3}{2}, -1)$

5i) $2x^3 + 3x^2 - 23x - 12$

ii) 9

6i)



ii) Translation \uparrow 5 units

iii) $y = -\sqrt{\frac{x}{2}}$

7i) $(x - \frac{5}{2})^2 - 6$

ii) $(\frac{5}{2}, 0)$ $r = \sqrt{6}$

8i) $-7 < x < -1$

ii) $x > 4$ or $x < 4$

9i) 13

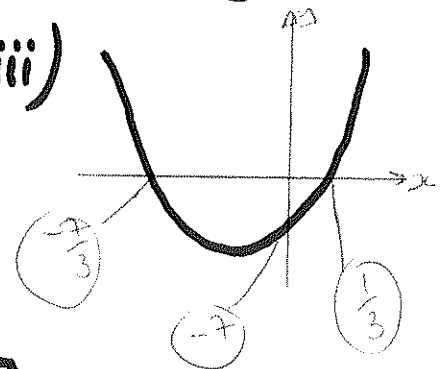
ii) $(\frac{3}{2}, 3)$

iii) $12x + 5y - 27 = 0$

10i) $x = -\frac{7}{3}, \frac{1}{3}$

ii) $(-1, -16)$

iii)



11i) $k = 6$

ii) 132 sq units