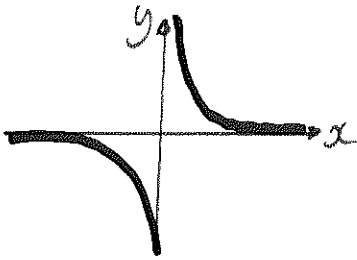


C1 June 2011

1)  $3(x-3)^2 - 23$

2i)



ii) Translation  
4 units  $\uparrow$

3i)  $32x^4$

ii)  $\frac{1}{6}x$

4)  $(\frac{9}{2}, \frac{25}{2})$   $(-2, 32)$

5i)  $6\sqrt{3}$

ii)  $3\sqrt{5} + 2\sqrt{2}$

6)  $x = \frac{16}{81}$   $x = 16$

7i)  $-\frac{7}{3} \leq x \leq -\frac{5}{6}$

ii)  $x > 6$  ,  $x < -2$

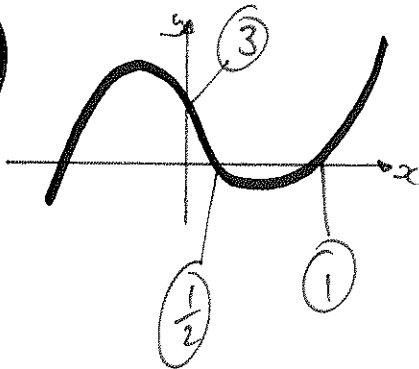
8i)  $(-1, 7)$

ii) min

9i) Show

ii)  $x^2 + y^2 - 4x + 8y - 30 = 0$

10i)



ii) Show

iii)  $y = 4x + 23$

iv) Yes