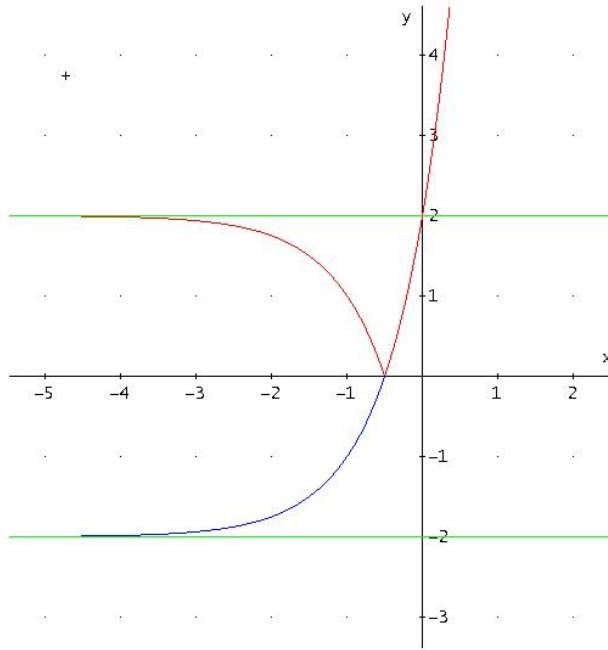


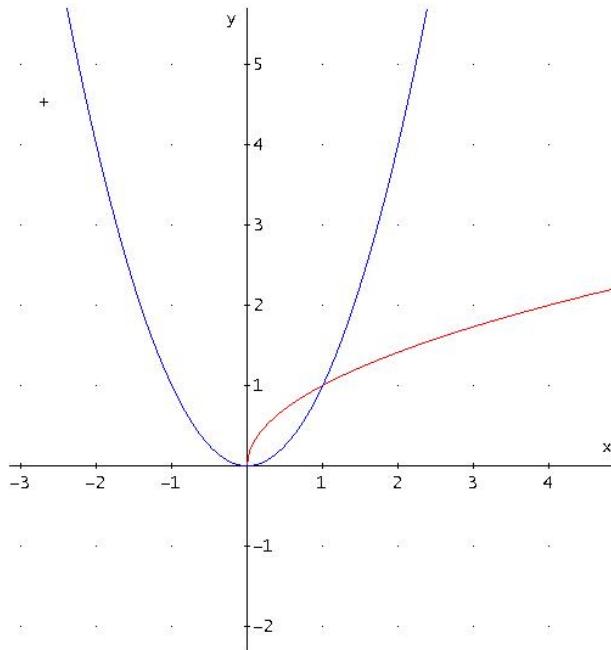
MATURA OR junij 2006 (EG) Rešitve - OR

1. $S(-\frac{3}{2}, 4)$, $y = -\frac{5}{2}x + \frac{1}{4}$
2. $S = ab \sin \alpha$, $a = 10 + b$, $b^2 + 10b - 96 = 0$ $a = 16, b = 6$
3. $(x - 1)^2 + (y + 2)^2 = 2$ $S = 2\pi$
4. $x = 8$
5. $D_f = (-1, 1)$
6. $N(0, 2)$, $M(-\frac{1}{2}, 0)$



7. $a = 5$, $qquad f(x) = 5(x - 1)^2 - 2 = 5x^2 - 10x + 3$
8. Dvakrat zaporedoma naredimo Hornerjev algoritem in dobimo: $4a - 2b - 12 = 0$, $-4a + b + 12 = 0$ rešitev: $a = 3, b = 0$, $f(x) = x^3 + 3x^2 - 4$. Tretja ničla je $x = 1$.
9. $\vec{a} \cdot \vec{b} = |\vec{a}| |\vec{b}| \cos \alpha$ $(1, k) \cdot (k, 1) = \sqrt{1+k^2} \sqrt{k^2+1} \cos 60^\circ$
 $2k = (1+k^2)\frac{1}{2}$ $k^2 - 4k + 1 = 0$ $k_1 = 2 + \sqrt{3}, k_2 = 2 - \sqrt{3}$

$$10. \ S = \frac{1}{3}$$



$$11. \ y' = e^x(x^2 + 2x - 3) \quad E_1(-3, 6e^{-3}), E_2(1, -2e)$$

$$12. \ \frac{1}{15}$$