

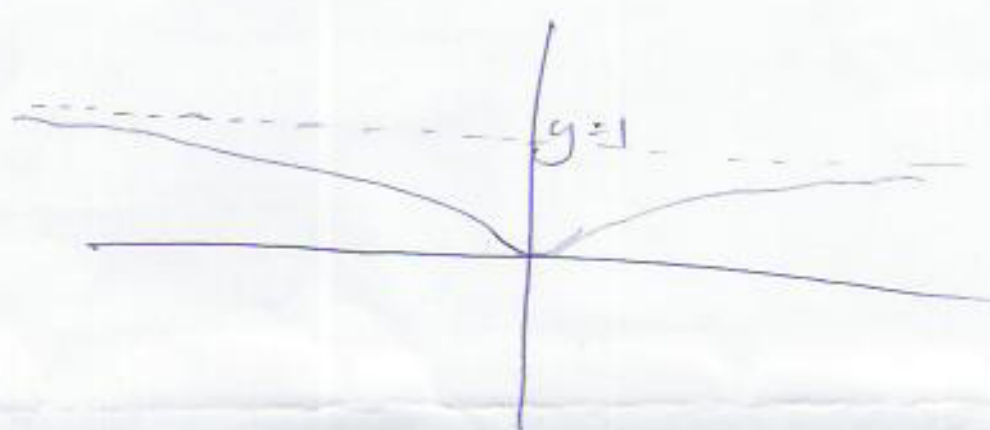
$$3) f(x) = e^{-1/x^2}$$

$$f(0) = e^{-1/0} = e^{-\infty} = 0$$

$$f'(0) = \left[\frac{2}{x^3} e^{-1/x^2} \right]_{x=0} = 0$$

(4)

b) $f(x)$ is shown below



There is an asymptote at $y=1$ close to $x=0$, $f(x)=0$ which is also implied by the 1st two terms of the Maclaurin series.

P70