2) a) $y = xe^x$

$y' = 1e^x + xe^x$

$e^x + xe^x = 0$ ou $e^x(1+x)/x = -1$

$x_I = -1$ $x_{II} = -1$

b) $2x^3 - 3x^2 - 12x + 1$

$6x^2 - 6x - 12$

$b^2 - 4.a.c$

$36 - 4.6.-12$

$\sqrt{324} = 18$

$\frac{+6 \pm 18}{12}$ $x_I = \frac{24}{12} = 2$ $x_{II} = \frac{-12}{12} = -2$

$x_I = 2$

$x_{II} = -1$