ДЧС Киреев 11.12.12

$f'(x) = 0$

$+ \quad -$

$$\frac{f'(x_0 + h) - f'(x_0)}{h}$$

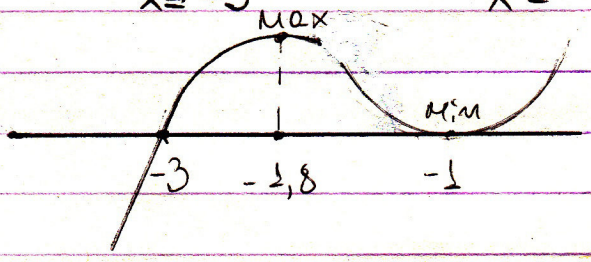
$$f(x) = (x+1)^2(x+3)^3$$

$$f'(x) = 2(x+1)(x+3)^3 + 3(x+1)^2(x+3)^2$$

$$f'(x) = (x+1)(x+3)^2\left(2(x+3)+3(x+1)\right)$$

$$f'(x) = (x+1)(x+3)^2(5x+9)$$

$x = -1$ $\quad x = -3$ $\quad x = -\frac{9}{5} = -1{,}8$



$$e^z = \sum_{n=0}^{\infty} \frac{z^n}{n!}$$

$$e^{z_1+z_2} = e^{z_1}e^{z_2}$$

$z = x + iy \qquad i \in \mathbb{C}$

$$e^{iy} = \sum_{n=0}^{\infty} \frac{(iy)^n}{n!}$$

$e^{iy} = \cos y + i\sin y$ Эйлер !

$$e^z = e^{x+iy} = e^x e^{iy} = e^x(\cos y + i\sin y)$$!