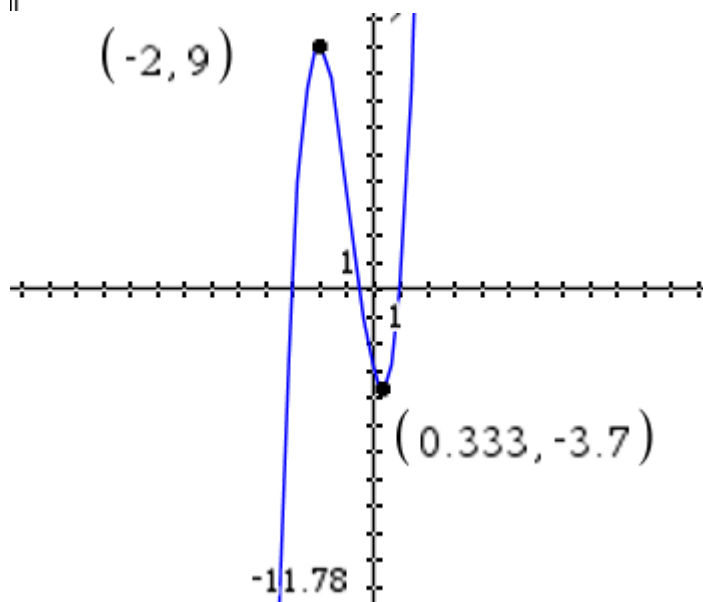


Odpowiedzi

Zad.1

$f(x) := 2 \cdot x^3 + 5 \cdot x^2 - 4 \cdot x - 3$	Done
$\text{solve}(f(x)=0, x)$	$x = -3$ or $x = \frac{-1}{2}$ or $x = 1$
$\frac{d}{dx}(f(x))$	$6 \cdot x^2 + 10 \cdot x - 4$
$\text{solve}\left(\frac{d}{dx}(f(x))=0, x\right)$	$x = -2$ or $x = \frac{1}{3}$

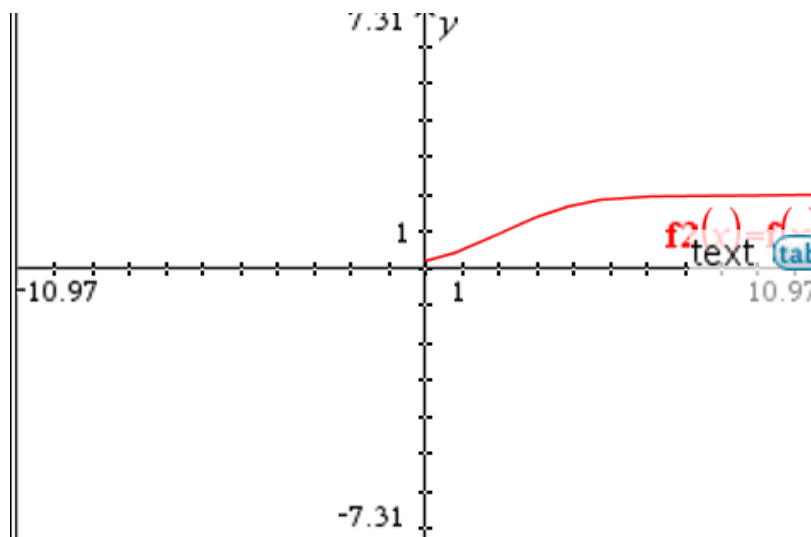
$\text{solve}\left(\frac{d}{dx}(f(x))=0, x\right)$	$x = -2$ or $x = \frac{1}{3}$
$\text{solve}\left(\frac{d}{dx}(f(x)) > 0, x\right)$	$x < -2$ or $x > \frac{1}{3}$
$\text{solve}\left(\frac{d}{dx}(f(x)) < 0, x\right)$	$-2 < x < \frac{1}{3}$



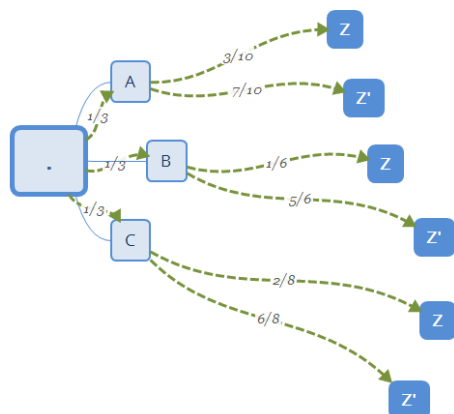
Zad.2

$f(x) := \frac{2 \cdot e^x}{e^x + 9} \mid x \geq 0$	Done
$f(0)$	$\frac{1}{5}$
$f(1)$	$\frac{2 \cdot e}{e+9}$

$f(1) - f(0)$	$\frac{9}{5} - \frac{18}{e+9}$
$f(1) - f(0)$	0.263939
$\text{solve}(f(x) = 1.5, x)$	$x = 3.29584$
$\lim_{x \rightarrow \infty} (f(x))$	2



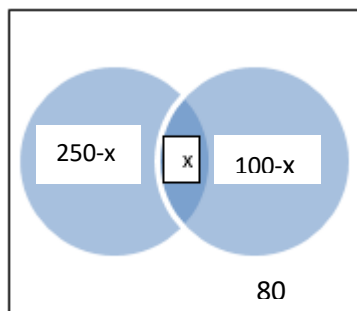
Zad.3



a) $7/30$

$\text{binomPdf}(4, 0.3, 0)$	0.2401
$(0.7)^4$	0.2401
$\text{binomPdf}(4, 0.3, 2)$	0.2646

Zad.4



- b)30
- c)3/40
- d)7/40
- e)7/15