

1. minitest - varianta A

Vlastnosti funkcí

29. 9. 2023

Určete definiční obor a obor hodnot funkce

$$f(x) = \log_9 \left(\frac{x-2}{3x+12} \right)$$

$$\frac{x-2}{3x+12} > 0 \iff x \in (-\infty, -4) \cup (2, \infty)$$

$= D_f$

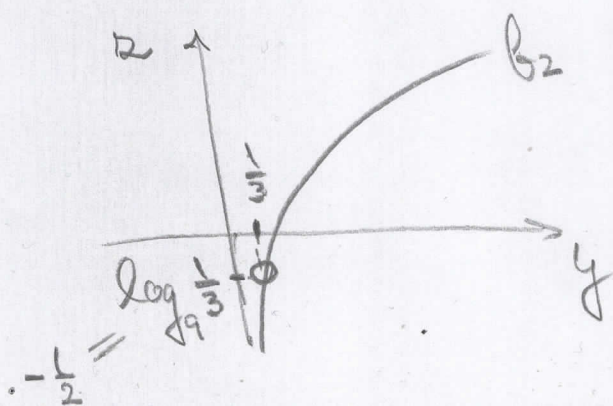
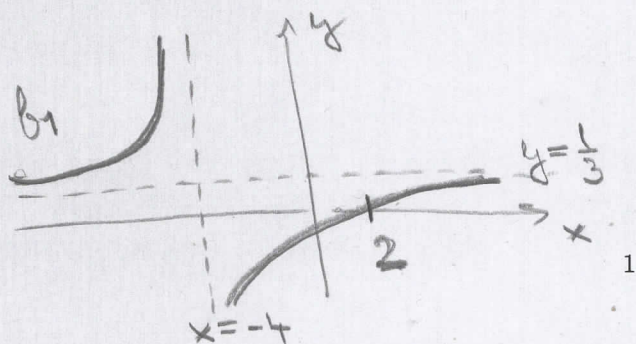
$x-2$	-		-	0	+
$3x+12$	-		0	+	+
$-\infty$	⊕		-4	-	2
				⊕	$+\infty$

$$f(x) = (b_2 \circ b_1)(x)$$

$$b_1(x) = \frac{x-2}{3x+12}$$

$$b_2(y) = \log_9 y$$

$$D_f = (-\infty, -4) \cup (2, \infty) \xrightarrow{b_1} (0, \infty) \cdot \left\{ \frac{1}{3} \right\} \xrightarrow{b_2} \mathbb{R} \cdot \left\{ -\frac{1}{2} \right\} = H_f$$



1. minitest - varianta B

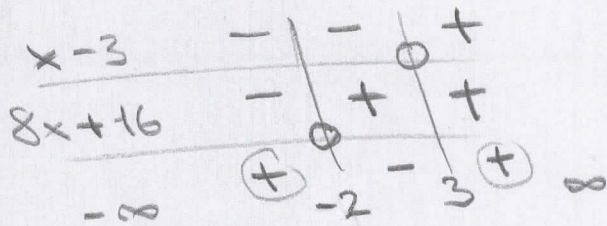
Vlastnosti funkcí

29. 9. 2023

Určete definiční obor a obor hodnot funkce

$$f(x) = \log_2 \left(\frac{x-3}{8x+16} \right)$$

$$\frac{x-3}{8x+16} > 0 \iff x \in (-\infty, -2) \cup (3, \infty) = D_f$$



$$f(x) = (b_2 \circ b_1)(x)$$

$$b_1(x) = \frac{x-3}{8x+16}$$

$$b_2(y) = \log_2 y$$

$$D_f = (-\infty, -2) \cup (3, \infty) \xrightarrow{b_1} (0, \infty) \setminus \left\{ \frac{1}{8} \right\} \xrightarrow{b_2} \mathbb{R} \setminus \{-3\} = H_f$$

