

tercer parcial Gabriel León

1.  $f(x) = \sqrt{x-2}$ ;  $g(x) = \frac{1}{x}$

$$\sqrt{x-2}$$

$$x \in \mathbb{R} \setminus \{0\}$$

$$x-2$$

$$x \geq 2$$

$$x-2$$

$$x \in [2, +\infty[$$

$$(f \circ g)(x) = \sqrt{\frac{1}{x} - 2}$$

$$\left] 0, \frac{1}{2} \right]$$

$$3. f(x) = (9 - 6x)^2$$

$$f(x) = (-6x - 9)^2$$

$$(-6x + 9)^2$$

$$-6x + 9$$

$$x \in \mathbb{R}$$

$$b \in \mathbb{R}$$

$$x \in \mathbb{R}$$

$$f^{-1}(x) = y = (9 - 6x)^2$$

$$x = (9 - 6y)^2$$

$$y = \frac{\sqrt{x} - 9}{6}$$

$$f^{-1}(x) = \frac{\sqrt{x} - 9}{6}$$

$$[0, +\infty[$$

Dom  $f$ ?

$$4. \log_2 (512)$$

$$= \log_2 (2^9)$$

$$= 9$$

~~$$3 \log_3 (2)$$~~

~~$$3 \log_{3^2} (2)$$~~

$$3 \cdot \frac{1}{2} \log_3 (2)$$

$$\frac{3}{2} \log_3 (2)$$

$$0.94639$$

$$\log_{\sqrt{2}} (16)$$

$$\log_{2^{\frac{1}{2}}} (2^4)$$

$$= 8$$

! Faltaba  
de sobra 6  
log 2  
+ 3 log 3

No uso de no



$$5. \log_x (b-x) = 2$$

$$\frac{\ln(b-x)}{\ln(x)} = 2$$

$$\frac{\ln(b-x)}{\ln(x)} \ln(x) = 2 \ln(x)$$

$$\ln(b-x) = 2 \ln(x)$$

$$\ln(b-x) = \ln(x^2)$$

$$b-x = x^2$$

$$x = 2$$

$$B) \log(x+2) - \log(x-1) = \log(4)$$

$$\log(x+2) - \log(x-1) = \log(4) + \log(x-1)$$

$$\log(x+2) = \log(4) + \log(x-1)$$

$$\log(x+2) = \log(4(x-1))$$

$$x+2 = 4(x-1)$$

$$x = 2$$

$$C) 10^x = 25$$

$$\log(10^x) = \log(25)$$

$$\log(10) = \log(25)$$

$$\frac{2 \log(5)}{\log(10)}$$

$$x = 1.39794$$

$$x = 2 \log 5$$