Luis Ricardo Reyes Villar

DIA | MES | AÑO

Examen 2

I.

1. $x^2 - 4x - 32 > 0$ $(-4, 8)$

$(x-8)(x+4)$

$x_1 = 8$

$x_2 = -4$

2. $\frac{4x-8}{6} > 4$ $(-\infty, 8)$

$4x - 8 > 24$

$4x > 32$

$x > 8$

3. $x^2 - x - 6 \geq 0$

$(x-3)(x+2)$ $(-2, 3)$

$x_1 = 3$

$x_2 = -2$

4. $2x - 6 \leq x + 4$ $(10, +\infty)$

$x \leq 10$

5. $x^2 - 7x + 10 \leq 0$

$(x-2)(x-5)$ $(2, 5)$

$x_1 = 2$

$x_2 = 5$

II

$f(x) = 2x^2 + x - 5$

$g(x) = \frac{2x+1}{x}$

Calcular $= \frac{f(2) - f(3)}{g(-1) \cdot g(4)}$ $\frac{(-5) - (16)}{(-0.5) \cdot (2.25)} = \frac{-11}{-1.125} = 9.7$

Calcular $= \frac{f(-1) + f(2)}{g(2)} =$ $\frac{-4+5}{2.5} = \frac{1}{2.5} = = \frac{2}{5} = 0.4$

Norma

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III

$\lim_{x \to 2} \frac{x^2+3x-10}{3x-6} = \frac{4+6-10}{6-6} = \frac{0}{0}$

$\frac{(x+5)(x-2)}{(3)(x-2)} = \frac{x+5}{3} = \frac{7}{3}$

$\lim_{x \to 0} \frac{4x^2-12x}{6x} = \frac{0}{0}$

$\frac{(x)(4x-12)}{(x)(6)} = \frac{-12}{6} = -2$

$\lim_{x \to 36} \frac{(x-36)}{\sqrt{x}-6} = \frac{0}{0} = \frac{x-36}{\sqrt{x}-6} \cdot \sqrt{x}+6 = 12$

$\lim_{x \to 4} \frac{x^2-16}{x-4} = \frac{0}{0}$ $\frac{(x+4)(x-4)}{x-4} = x+4 = 4+4 = 8$

$\lim_{x \to 75} \frac{x^2-x-20}{2x-10} = \frac{5,530}{140} = \frac{553}{14} = 39.5$