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UDS



Alexia Gabriela Rodriguez Galindo

Limites

SHOT ON REDMI 9
AI QUAD CAMERA

$$\lim_{x \rightarrow 3} x^2 = 3^2 = 9$$

$$\lim_{x \rightarrow 0} (4x + 5) = (4(0) + 5) = 0 + 5 = 5$$

$$3- \lim_{x \rightarrow -2} (5x - 2) = (5(-2) - 2) = -10 - 2 = -12$$

$$4- \lim_{x \rightarrow 4} 6 = 6$$

$$5- \lim_{x \rightarrow 1/2} x = 2/2$$

$$6- \lim_{x \rightarrow 2} \frac{2x^2 + x - 1}{4x - 2} = \frac{2(2)^2 + 2 - 1}{4(2) - 2} = \frac{9}{6} = \frac{3}{2}$$

$$7- \lim_{x \rightarrow 2} (x^2 - 4) = (2^2 - 4) = 4 - 4 = 0$$

$$8- \lim_{x \rightarrow 1} 5x = 5(1) = 5$$

$$9 \lim_{x \rightarrow 2} 3x^2 = 3(2)^2 = 3(4) = 12$$

$$10- \lim_{x \rightarrow 2} (4x^2 - 8x + 5) = 4(2)^2 - 8(2) + 5 = 4(4) - 16 + 5 = 5$$

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$$\lim_{x \rightarrow 3} \frac{x+1}{2x+3} = \frac{3+1}{2(3)+3} = \frac{4}{9} = 0.444$$

$$12. \lim_{x \rightarrow -2} \sqrt{3x^2+4} = \sqrt{3(-2)^2+4} = \sqrt{3(4)+4} = \sqrt{16} = 4$$

$$1. \lim_{x \rightarrow 0} \frac{8x^2-2x}{2x} = \frac{8(0)^2-2(0)}{2(0)} = \frac{8(0)-2(0)}{2(0)} = \frac{0}{0}$$

$$\lim_{x \rightarrow 0} \frac{\cancel{2x}(4x-1)}{\cancel{2x}} =$$

$$\lim_{x \rightarrow 0} \frac{x(4x-1)}{x}$$

$$\lim_{x \rightarrow 0} (4x-1) = 4(0)-1 = -1$$

$$2. \lim_{x \rightarrow -1} \frac{x^2-1}{x+1} = \frac{-1^2-1}{-1+1} = \frac{1-1}{-1+1} = \frac{0}{0}$$

$$\lim_{x \rightarrow -1} \frac{(x^2-1)\cancel{(x+1)}}{\cancel{x+1}}$$

$$\lim_{x \rightarrow -1} (x-1) = -1-1 = -2$$

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$$1. \lim_{x \rightarrow 0} \frac{5x}{x} = \frac{5(0)}{0} = \frac{0}{0}$$

$$\lim_{x \rightarrow 0} \frac{5x}{x} = 5$$

$$4. \lim_{x \rightarrow -5} \frac{x+5}{x^2-25} = \frac{-5+5}{(-5)^2-25} = \frac{0}{0}$$

$$\lim_{x \rightarrow -5} \frac{x+5}{(x-5)(x+5)}$$

$$\lim_{x \rightarrow -5} \frac{1}{x-5} = \frac{1}{-5-5} = \frac{1}{-10} = -\frac{1}{10}$$

$$5. \lim_{x \rightarrow 3} \frac{x^2+4x-21}{x-3} = \frac{3^2+4(3)-21}{3-3} = \frac{0}{0}$$

$$\lim_{x \rightarrow 3} \frac{x^2+7x-3x-21}{x-3}$$

$$\lim_{x \rightarrow 3} \frac{x(x+7)-3x-21}{x-3}$$

$$\lim_{x \rightarrow 3} \frac{x(x+7-3)(x+7)}{x-3}$$

$$\lim_{x \rightarrow 3} \frac{(x+7)(x-3)}{x-3}$$

$$\lim_{x \rightarrow 3} (x+7) = 3+7 = 10$$

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$$\lim_{x \rightarrow -4} \frac{x^2 + 5x + 4}{x + 4} = \frac{(-4)^2 + 5(-4) + 4}{-4 + 4} = \frac{0}{0}$$

$$\lim_{x \rightarrow -4} \frac{x^2 + 5x + 4}{x + 4} = \frac{x^2 + 4x + x + 4}{x + 4}$$

$$\lim_{x \rightarrow -4} \frac{x(x + 4) + x + 4}{x + 4}$$

$$\lim_{x \rightarrow -4} \frac{(x + 4)(x + 1)}{x + 4}$$

$$\lim_{x \rightarrow -4} x + 1 = -4 + 1 = -3$$

$$7. \lim_{x \rightarrow 2} \frac{x^2 - 8x + 12}{x - 2} = \frac{2^2 - 8(2) + 12}{2 - 2} = \frac{0}{0}$$

$$\lim_{x \rightarrow 2} \frac{x^2 - 2x - 6x + 12}{x - 2}$$

$$\lim_{x \rightarrow 2} \frac{x(x - 2) - 6x + 12}{x - 2}$$

$$\lim_{x \rightarrow 2} \frac{x(x - 2) - 6(x - 2)}{x - 2}$$

$$\lim_{x \rightarrow 2} \frac{\cancel{x - 2}(x - 6)}{\cancel{x - 2}}$$

$$\lim_{x \rightarrow 2} (x - 6) = 2 - 6 = -4$$

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$$\lim_{x \rightarrow -1} \frac{x^3 + 1}{x + 1} = \frac{-1 + 1}{-1 + 1} = \frac{0}{0}$$

$$\lim_{x \rightarrow -1} \frac{(x+1)(x^2-x+1)}{x+1}$$

$$\lim_{x \rightarrow -1} x^2 + x + 1 = (-1)^2 - (-1) + 1 = 3$$

