

$$2) \lim_{x \rightarrow 2^-} ax^2 + x - b = \lim_{x \rightarrow 2^+} ax + b$$

a)

$$4a + 2 - b = 2a + b$$

$$2a + 2 = 2b$$

$$2a = 2b - 2$$

$$a = b - 1$$

$$\lim_{x \rightarrow 5} ax + b = \lim_{x \rightarrow 5} 2ax - 7$$

$$a = -2$$

$$5a + b = 2a - 7$$

da

$$5(b - 1) + b = 2(b - 1) - 7$$

$$5b - 5 + b = 2b - 2 - 7$$

$$6b - 5 = 2b - 9$$

$$4b = -4$$

$$b = -1$$

$$b) \lim_{x \rightarrow 4} -2(x)^{-1}$$

$$\lim_{x \rightarrow 4} f(x) = -0.25$$

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

$$\lim_{x \rightarrow 1}$$

~~2~~  
1

$$1) \lim_{x \rightarrow 0} \frac{x^2 + 5x + 6}{2x^2 + 7x + 3}$$

$$\frac{6}{3} \cdot \frac{2}{5}$$

$$\frac{(x+3)(x+2)}{2x^2 + 6x + x + 3} = \frac{(x+3)(x+2)}{(2x+1)(x+3)}$$

$$\frac{6}{3} \cdot \frac{2}{5}$$

$$\frac{2x(x+3) + 1(x+3)}{(-\infty, -3) \cup (-3, \infty)}$$

$$b) \lim_{x \rightarrow 3} \frac{(x+2)}{(2x+1)} = \frac{1}{5}$$

c)

$$d) y = -\frac{1}{2}$$

$$2x+1=0 \quad x = -\frac{1}{2}$$

$$d) x = \frac{1}{2}$$