

Name:

S. No.:

ID:

1. $\lim_{x \rightarrow \infty} \frac{3x - 2x^3}{4x^3 - 3x^3 + 1}$ is

$$\lim_{x \rightarrow \infty} \frac{3x - 2x^3}{x^3 + 1} = -2$$

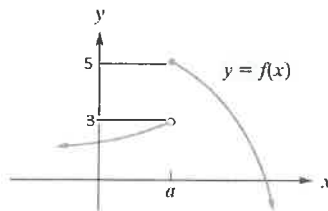
2. Find the limit at $x = 0$ for the function $f(x) = \frac{1}{x}$

$$\lim_{x \rightarrow 0^+} f(x) = \lim_{x \rightarrow 0^+} \frac{1}{x} = \infty$$

$$\lim_{x \rightarrow 0^-} f(x) = \lim_{x \rightarrow 0^-} \frac{1}{x} = -\infty$$

$$\lim_{x \rightarrow 0} f(x) \text{ DNE}$$

3. The graph of the function $y = f(x)$ is given below: find the limit from both side at $x = a$



$$\lim_{x \rightarrow a^+} f(x) = 5$$

$$\lim_{x \rightarrow a^-} f(x) = 3$$