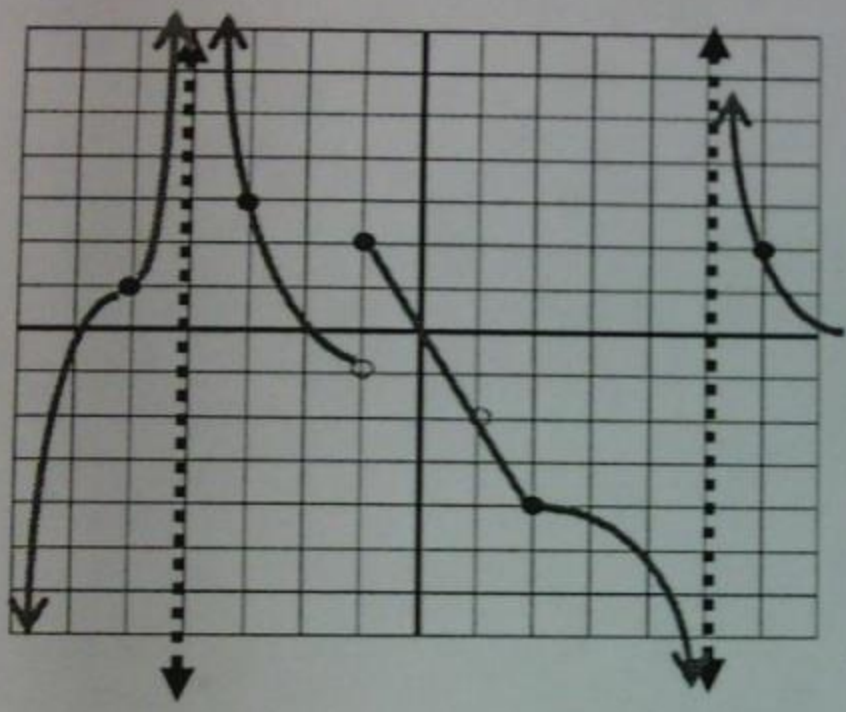


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1.



a) $\lim_{x \rightarrow 5^-} f(x) = -\infty$ b) $\lim_{x \rightarrow -4^+} f(x) = \infty$ c) $f(-1) = 2$

d) $\lim_{x \rightarrow -1^-} f(x) = -1$ e) $\lim_{x \rightarrow 1} f(x) = -2$ f) $f(6) = 2$

g) $\lim_{x \rightarrow -1} f(x) = \text{DNE}$ h) $\lim_{x \rightarrow 5} f(x) = \text{DNE}$ i) $f(-4) = \emptyset$

j) $\lim_{x \rightarrow 5^+} f(x) = \infty$ k) $\lim_{x \rightarrow -4^-} f(x) = \infty$ l) $f(1) = \emptyset$ m) $\lim_{x \rightarrow -4} f(x) = \infty$ n) $f(5) = \emptyset$

o) For which value(s) of x does the limit not exist? $x = -1, 5$

p) For which value(s) of x is the graph discontinuous? $x = -4, \pm 1, 5$

2. State all Holes and Asymptotes for a and b and then write the equation for c and d:

a) $f(x) = \frac{9x^2 - x}{x^3 - 9x}$

b) $g(x) = \frac{3x^2 - 13x - 10}{x^2 - 4x - 5}$

c) Hole(s): $x = 0, 3$

d) Hole(s): $x = -2$

VA: $x = -1$

VA: $x = 3, -3$

HA: $y = 0$

HA: $y = -1/2$