

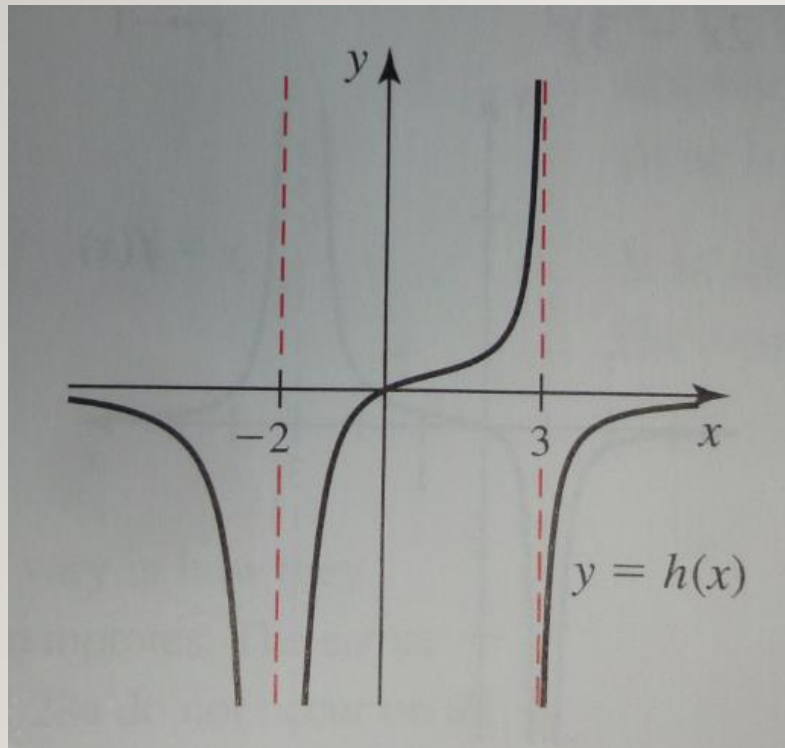
LESSON 1.5 B

THE LIMIT OF A FUNCTION / INFINITE LIMITS

WARM UP

Describe, in your own words, the meaning of the statement $\lim_{x \rightarrow 5} f(x) = \infty$.

PROBLEM



Source: Briggs, Cochran, Gillett, 2016

Calculate the following, if possible:

(a) $\lim_{x \rightarrow -2^-} h(x)$

(d) $\lim_{x \rightarrow 3^-} h(x)$

(b) $\lim_{x \rightarrow -2^+} h(x)$

(e) $\lim_{x \rightarrow 3^+} h(x)$

(c) $\lim_{x \rightarrow -2} h(x)$

(f) $\lim_{x \rightarrow 3} h(x)$

PROBLEM

Consider the function $g(x) = \frac{x}{x^2 - 4x}$. Examine

$\lim_{x \rightarrow 0} g(x)$ and $\lim_{x \rightarrow 4} g(x)$ and describe what is

happening in each case.