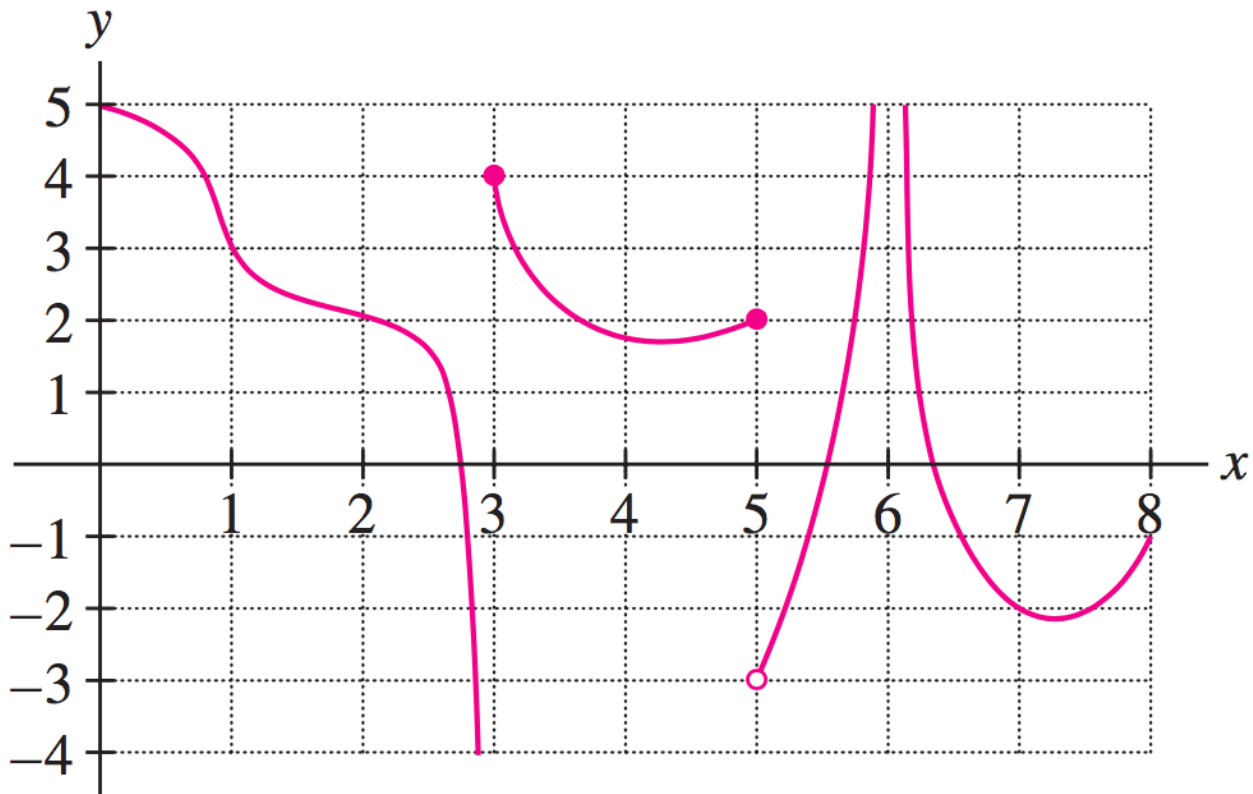


King Fahd University of Petroleum and Minerals
Department of Mathematics and Statistics
Math 101 - Quiz 1

Name:
Student ID #:

Question 1. Using the graph of $y = f(x)$ shown in the picture, answer the questions below:



Find the following:

(1) $f(0) + \lim_{x \rightarrow 3^+} f(x) =$

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

(3) All the vertical asymptotes of f .

Question 2. Find the limits below. If the limit is infinity, determine the type of the infinity.

$$(1) \lim_{x \rightarrow 2} \frac{x^2 - 7x + 10}{x^2 + x - 6}$$

$$(2) \lim_{x \rightarrow 0} \frac{\frac{1}{x-1} + \frac{1}{x+1}}{x}$$

$$(3) \lim_{x \rightarrow 3^-} \frac{|x^2 - 9|}{x - 3}$$

$$(4) \lim_{x \rightarrow 2^+} \frac{1-x}{\sqrt{x-2}}$$