

Quiz 3: Tuesday, November 18

NAME:

Lab instructor (circle one): Bauer Nettel-Aguirre

For Part I, you need not show all of your work. For Part II, SHOW ALL YOUR WORK. Answer each question in the space provided. A correct answer without work shown may be worth 0 points, while an incorrect answer with work shown may be worth partial credit. CALCULATORS ARE NOT PERMITTED. Each question on the quiz is worth 5 points.

Part I. Circle your answer.

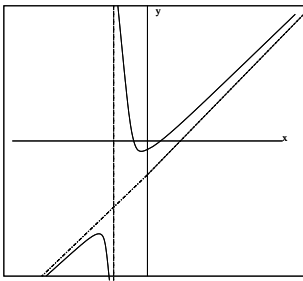


Figure 1

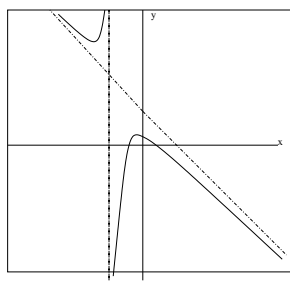


Figure 2

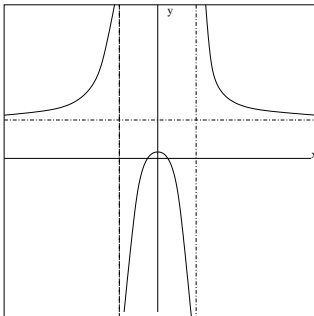


Figure 3

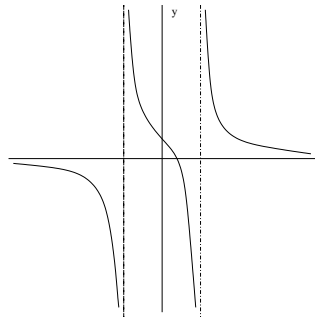


Figure 4

1. Which of the graphs above might be the graph of $y = \frac{1-x^2}{x+2}$?
 a. 1 b. 2 c. 3 d. 4

2. Which of the following functions might be the function whose graph is graph number 4 above?
 a. $y = \frac{x-1}{x^2-2}$ b. $y = \frac{x-1}{x-2}$ c. $y = \frac{x}{x^2-2}$ d. $y = \frac{x^2}{x-2}$.

3. What is the limit of $\lim_{x \rightarrow 0} \frac{e^{3x}-1}{x}$?
 a. 0 b. 1/3 c. 3 d. does not exist

4. Find a positive number such that the sum of the number and its reciprocal is as small as possible.