

MTH 1125 Test #1 - (2 pm class)

FALL 2018

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Name _____

Instructions. Show CLEARLY how you arrive at your answers.

1. Compute: $\lim_{x \rightarrow 2} \frac{x^2 + 2x + 12}{x^2 + 6x - 12} =$

2. Compute: $\lim_{x \rightarrow -1} \frac{x^2 - 5x - 6}{x^2 - 2x - 3} =$

3. Compute: $\lim_{x \rightarrow 2} \frac{x^2 - 2x - 15}{x^2 + 2x - 8} =$

4. Compute: $\lim_{x \rightarrow -\infty} \frac{x^4 + 4x^3 - 8x}{9x^3 + 4x - 5} =$

5. $f(x) = \frac{x^2-4x+3}{x^2-3x-10}$ Find the asymptotes and graph

6. Compute: $\lim_{x \rightarrow 3} \frac{\sqrt{x+22}-5}{x-3} =$

7.

$x =$	$f(x) =$	$x =$	$f(x) =$
-9.1	-2.5	9.1	-1.5
-90.8	-2.1	90.8	-1.9
-900.3	-2.01	900.3	-1.99
-9,000.3	-2.001	9,000.3	-1.999
-90,000.9	-2.0001	90,000.9	-1.9999

Based on the information in the table above, do the following:

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

(b) $\lim_{x \rightarrow +\infty} f(x) =$

(c) Graph $f(x)$