

MTH 1125 Test #1 - (12 pm class)

FALL 2016

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Name _____

Instructions. Show CLEARLY how you arrive at your answers.

1. Compute: $\lim_{x \rightarrow 2} \frac{x^2 - 8x + 12}{x^2 + 4x - 12} =$

2. Compute: $\lim_{x \rightarrow 3} \frac{x^2 - 4x - 11}{x^2 - 6x + 15} =$

3. Compute: $\lim_{x \rightarrow 3} \frac{x^2 + x - 6}{x^2 + 7x - 30} =$

4. Compute: $\lim_{x \rightarrow -\infty} \frac{x^3 + 3x^2 - 8x}{9x^2 + 4x - 5} =$

5. $f(x) = \frac{x^2+x-6}{x^2-x-6}$ Find the asymptotes and graph

6. Compute: $\lim_{x \rightarrow 3} \frac{\sqrt{19-x}-4}{x-3} =$

7.

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

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

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

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

(c) Graph $f(x)$