

Name: _____

Clear your desk of everything excepts pens, pencils and erasers. If you have a question raise your hand and I will come to you.

1. (2 points) **Multiple Choice.** No work needed. No partial credit available. Compute the following limit.

$$\lim_{x \rightarrow \infty} \sqrt{9x^2 + x} - 3x$$

- A. ∞
- B. $\frac{1}{12}$
- C. $\frac{1}{6}$
- D. $-\infty$
- E. 1

Extra Work Space.

2. (3 points) Draw a graph of the curve $y = (x - 3)\sqrt{x}$. Make sure to clearly identify any intercepts, asymptotes, intervals of increase and decrease, local extrema, and the concavity of the curve.