Name ____________________________

RULES FOR THIS TEST:

• Do not borrow another student’s calculator.

• Circle each final answer.

• A correct answer will only be given full credit if enough work is shown to justify that answer.

1. (3 points) Evaluate the following limit analytically (i.e., you will not receive credit for simply approximating the correct answer with a calculator)

\[ \lim_{x \to 2} \frac{12x - 24}{x^2 - 4} \]

2. (3 points) Evaluate the following limit. You may use your calculator to approximate this limit, but your answer must be within 0.1 of the correct limit.

\[ \lim_{t \to 0} \frac{\sin^2(3t)}{t^2} \]
3. (4 points) For the function $f$ graphed below, find the indicated limit or state that the limit does not exist.

(a) $\lim_{x \to -2} f(x)$

(b) $\lim_{x \to 1} f(x)$