

Name _____

- No calculators allowed.
- Show sufficient work to justify each answer.
- You have 15 minutes for this quiz.

1. (2 points) Evaluate $\tan\left(\sec^{-1}\left(\frac{3}{2}\right)\right)$.

2. (2 points) There is an odd function $f(x)$ which is continuous at all real numbers and takes on the following values.

$$f(1) = 2, \quad f(2) = -4, \quad f(3) = 5, \quad f(4) = 6, \quad f(5) = 4, \quad f(6) = -2$$

Evaluate $\lim_{x \rightarrow -4} f(x)$.

3. (2 points each) Evaluate the following limits.

(a) $\lim_{x \rightarrow -\infty} \frac{5 + 2x^3}{3x^3 + 4}$

(b) $\lim_{x \rightarrow 2.5^+} \frac{e^x}{5 - 2x}$

(c) $\lim_{x \rightarrow 3} \frac{2x^2 - 18}{2x^2 - 5x - 3}$