

Name: _____

Date: _____

To receive any credit for the following problems, you must show complete and accurate work. Use proper limit notation and give exact answers unless otherwise noted.

Determine each of the following limits:

1. $\lim_{x \rightarrow -\infty} 3x^{-5}$

2. $\lim_{x \rightarrow \infty} \cos(x)$

3. Given $h(x) = \frac{5x^3 - 8x}{15x^3 + 45x^2 - 150x}$, determine **ALL** the asymptotes, if any, of $h(x)$.
Justify the type of asymptote using the concept of limits.