

Math 252 Homework 1 Written Part **Name:** _____

Write legibly. Show your work. Graph neatly. Use a ruler for all straight lines.

For the following limit forms, either give the answer or label it as indeterminate. Be ready to discuss/explain your answers next class.

Remembering that these are results of limits, it's smart to think:

0 = a number very close to zero that might be positive or negative, and that's getting closer to zero.

∞ = a very big positive number, that's getting infinitely bigger.

1 = a number very close to 1, that's getting closer to 1, but it might be less than 1 or greater than 1.

(1) $\frac{0}{0}$

(2) $\frac{\infty}{\infty}$

(3) $\frac{0}{\infty}$

(4) $\frac{\infty}{0}$

(5) $\infty + \infty$

(6) $\infty - \infty$

(7) $\infty \cdot \infty$

(8) $\infty \cdot 0$

(9) 0^0

(10) 0^∞

(11) ∞^0

(12) 1^∞