

Math 180
Winter, 2009

Name _____

Homework #2
Due Thursday, January 8
No late papers accepted! No excuses!

1. Find each of the following limits.

a) $\lim_{x \rightarrow 9} \frac{\sqrt{x} - 3}{x - 9}$

b) $\lim_{x \rightarrow 2} \frac{x^2 - 7x + 10}{x - 2}$

2. Let $f(x) = \frac{2}{5-x}$. Find $\lim_{h \rightarrow 0} \frac{f(x+h) - f(x)}{h}$.

3. Use the formal definition of limit to prove that $\lim_{x \rightarrow 2} \sqrt{2x-3} = 1$.