

Math 180
Winter 2010

Name _____

Homework #1
Due Wednesday, January 6
No late papers accepted! No excuses!

1. Let $f(x) = \sqrt{3x^2 - 2x - 4}$. State the domain and the range. Sketch the graph.

2. Show that the product of two odd functions is an odd function.

3. Let $f(x) = \frac{1}{3-x}$. Evaluate and simplify $\frac{f(x+h) - f(x)}{h}$.

4. Find an equation of the line that is perpendicular to the line $3x - 2y = 6$ and contains the point $(-6, 1)$. Graph both lines.

5. Solve $\sin(2x) + \cos x = 0$ $[0, 2\pi)$