Math 151     Homework 2  due Jan. 29, 98          Name _____

1.1      1.)  Find the equation of the line with angle of inclination of 30° that passes
         through the point (-3, 0)

1.1      2.)      Find the angle of inclination of the line $y = -\frac{1}{2}x + 2$ .

1.4      3.)      When writing a math text, sometimes the author  leaves out steps that
         students at the level of the text is written for should be capable of doing for
         themselves.  It is a good idea to get in the habit of filling in steps in order to greater
         understand what they are reading.
              On page 35, the author says that if we square out the right side of
         $y = a(x - h)^2 + k$  we will get an equation of the form  $y = ax^2 + bx + c$ .  Go ahead
         and do this and write $b$ and $c$ in terms of $a$, $h$, and $k$.

2.1      4.)  Another technique to reading a math book, besides filling in the missing
         information as in my last question, is to try to look at a problem in an additional way
         to the way given by the author.
              On page 64, example 1, show why $f(x) \rightarrow 3$ as $x \rightarrow 2$ algebraically.

2.4      5.)  It helps to have scratch paper handy while reading a math text.  You can use it
         to fill in the missing steps as in #3, look at things in a different way as in #4, and to
         draw pictures to clarify ideas.
              Refer to the bottom of page 98 (Continuity vs. Having a Limit).
                   (i)  Draw a picture where the answer to 1, 2, & 3 is yes.
                   (ii) Draw a picture where the answer to 1 & 2 is yes, but the answer to 3 is
                        no.