## PreCalculus Book:

Pg. 137 6, 9, 12, 15, 18, 19, 26, 27, 30, 33, 36, 38, 39, 41, 47, 48, 53, 54, 57, 58

## Carnegie Book:

Pg. $116 \quad 3(\mathrm{a}-\mathrm{e})$

## Additional Problems: Complete these problems on a separate sheet of paper.

Given $f(x)=2 x^{2}-3$, find the following:

1. $f(-4)$
2. $f(x+1)$
3. $\frac{f(x+h)-f(x)}{h}$
4. Find the inverse of the function.

$$
f(x)=(x-3)^{2}, x \geq 3
$$

5. A fenced in area is to be constructed with 180 feet of fencing next to a barn and an existing fence. No fencing is needed next to the barn or the existing fence. Label the figure in terms of $x$, write an equation for the area of the region, in term of $x$. Find the dimensions for the maximum area.

6. Graph the following without a calculator. Show at least 2 points.
a. $\quad y=2(x-4)^{2}+1$
b. $y=-x^{3}+2$
c. $y=\sqrt{-x}-3$
