Section 8.5

1) The graph of a quadratic function of the form $f(x) = ax^2 + bx + c$ passes through the points $(0, -3)$, $(2, -3)$, and $(3, -9)$. What are the values of $a, b,$ and c? Write the function.

Section 8.6

2) The profit of a small manufacturing company is given by equation $P = -10(x^2 - 200x + 1800)$, where P is the profit and x is the number of products the company manufactures.

(A) What is the minimum number of items the company must manufacture to have a profit?

(B) How many items must the company manufacture to have a profit greater than $500?