***Demand for pools.*** Tropical Pools sells an aboveground model for *p* dollars each. The monthly revenue for this model is given by the formula

*R*(*p*) = -0.08 *p*2 + 300*p*.

Revenue is the product of the price *p* and the demand (quantity sold).

**a)** Factor out the price on the right-hand side of the formula.

**b)** Write a formula *D*(*p*) for the monthly demand.

**c)** Find *D*(3000).

**d)** Use the accompanying graph to estimate the price at which the revenue is maximized. Approximately how many pools will be sold monthly at this price?

***Area of a sail.*** The area in square meters for a triangular sail is given by *A*(*x*) = *x*2 + 5*x+* 6.

**a)** Find *A*(5).

**b)** If the height of the sail is *x +* 3 meters, then what is the length of the base of the sail?