Calculus is everywhere! It is used to solve all sorts of common problems everyday!

A simple example of seeing calculus used in Economics and Business is the idea of:

Maximizing
PROFIT

Important Idea:

Profit = Revenue – Costs

The money you make = (How much money you bring in) – (Cost to bring in that money)

We can sometime develop functions for **revenue** and **cost** as functions and then we will get:

$$r(x) = \text{The revenue from selling } x \text{ items}$$

$$c(x) = \text{The cost of producing the } x \text{ items}$$

Profit

$$p(x) = r(x) - c(x)$$

Remember this profit formula. It will be the basis for some of the next optimization problems we solve.

Profit

$$p(x) = r(x) - c(x)$$

Profit = revenue - cost