

GLOBAL
EDITION 

Calculus

*for Business, Economics,
Life Sciences, and Social Sciences*

THIRTEENTH EDITION

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



ALWAYS LEARNING

PEARSON

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

Maximizing **PROFIT**





Important Idea:

$$\mathbf{Profit = Revenue - Costs}$$

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:

$r(x)$ = The revenue from selling x items

$c(x)$ = The cost of producing the x 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