

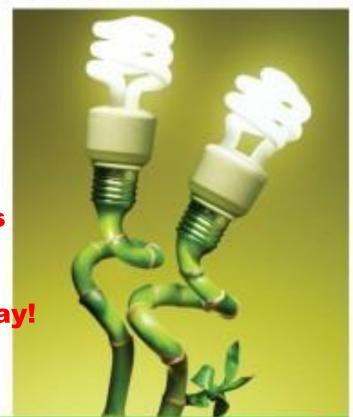
Calculus

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!



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:

$$r(x)$$
 = 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