# Graded Assignment 1 - Andy's Italian Coffee Shop

Last year, Andy studied in Italy. He enjoyed Espresso so much that once he returns home, he wants to offer original Italian coffee in his community. To get a feeling if his business idea is viable or not, Andy decides to make a business plan.

## Part 1: Cost

1.0/1.0 point (graded)
Andy thinks that his most important product will be Espresso. He estimates the variable cost of making one Espresso to be € 0.18. Running the coffee shop will incur € 197 in fix cost per day.

Write an expression to calculate Andy's daily business expenses.
Use x to indicate the number of Espressi made and use * for multiplication. Do not put any currency symbols into your answer.

0.18*x+197 ✔

Submit You have used 1 of 2 attempts

## Part 2: Demand

1.0/1.0 point (graded)
Andy thinks that the daily demand for Espresso can be written as a function of its selling price. Andy expects that for every Euro increase in the price of an Espresso, demand for Espresso will decrease by 1116. He also estimates that if he serves Espresso for free, 3131 people will buy it.

Write an expression for the daily demand of Espresso as a function of the selling price.
Use p to indicate the selling price in Euro per unit. Do not put any currency symbols into your answer.

3131-1116*p ✔

Submit You have used 1 of 2 attempts

## Part 3: Revenue

1.0/1.0 point (graded)
The revenue from the sale of Espresso can be modeled by multiplying demand and selling price. From the previous questions, we have an expression for demand as a function of selling price.

Use the answer from the previous question to find an expression for the daily revenue generated from the sale of Espresso as a function of the selling price.
Use p to indicate the selling price in Euro per unit.

3131*p-1116*p^2 ✔

Submit You have used 1 of 2 attempts

## Part 4: Cost to Manufacture

1.0/1.0 point (graded)
Andy only makes coffee if customers put in an order. Therefore Andy can model production cost depending on demand. For example, if Andy expects Z units to be sold given the price he has set, he will produce Z units.

Write an expression for the total daily cost of manufacturing Espresso as a function of the selling price.
Use p to indicate the selling price in Euro per unit.

0.18*(3131-1116*p)+197 ✔

Submit You have used 1 of 2 attempts

## Part 5: Profit

1/1 point (graded)

The profit from selling Espresso can be defined as the difference between revenue and manufacturing cost.

Write an expression for the daily profits gained from selling Espresso as a function of the selling price.

Use p to indicate the selling price in Euro per unit.

3131*p-1116*p^2-0.18*(3131-1116*p)-197 ✔

\(\)

Submit You have used 2 of 2 attempts

✔ Correct (1/1 point)

Learn About Verified Certificates