

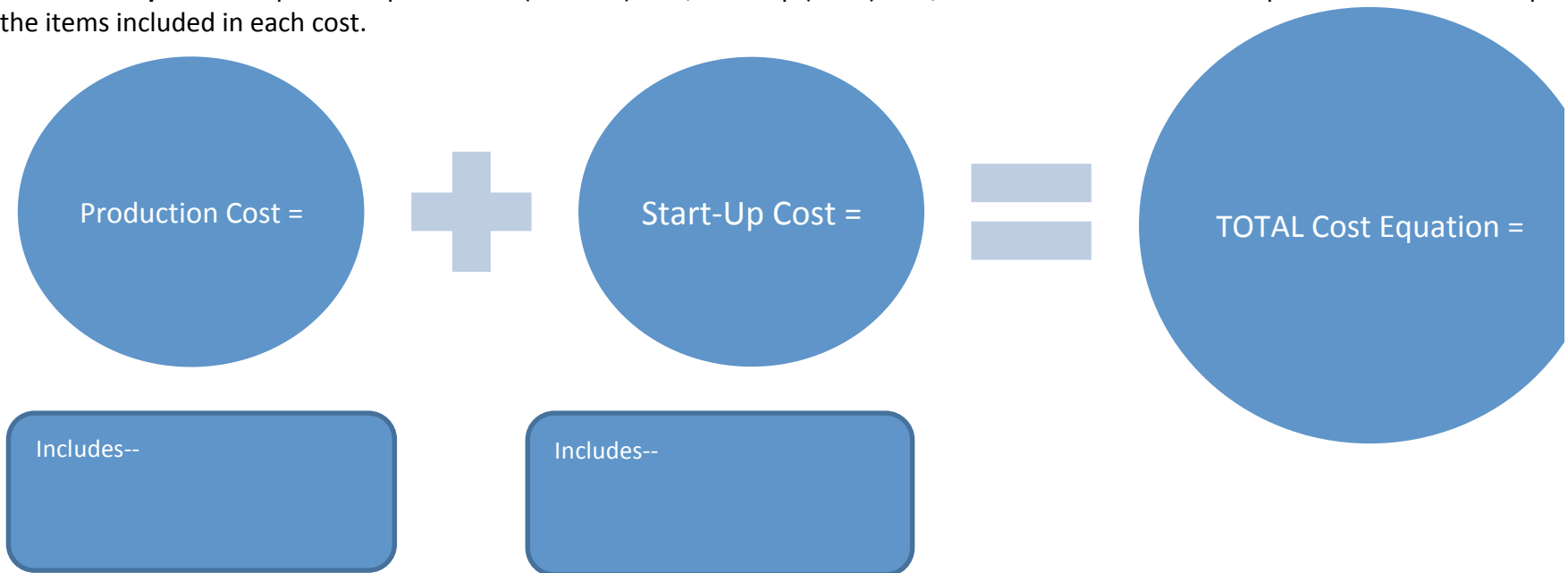
Business Model Linear Function Project

Develop a linear function business model. About selling cookies. You will compare the model using the values of 250 and 2000 for x . The model will develop/calculate the following items—

- Production (variable) cost
- Start-Up (fixed) cost
- Total cost (based on the two values of x)
- Average cost per item (based on the two values of x)
- Revenue (based on the two values of x)
- Profit (based on the two values of x)
- Break-Even Point

The submission should be typed, error free, and include labels in the following format:

- I. **Description:** A short description of the topic and the reason you choose it.
- II. **Cost Function Template:** Complete the production (variable) cost, start-Up (fixed) cost, and total cost function. For production and start-up c detail the items included in each cost.



- III. **Revenue:** State selling price with reasoning

IV. **Findings:** Show each function as defined in the table in terms of x , $x=250$, and $x=2000$. Also, include a sentence for each explaining the meaning of the column.

	<u>Cost Function</u>	<u>Average Cost per Item</u>	<u>Revenue Function</u>	<u>Revenue-Cost</u>	<u>Profit Function</u>	<u>Break-Even Point</u>
In terms of x						$x =$
$x = 250$						N/A
$x = 2000$						N/A
Description:						

V. **Conclusion:** A summary of the outcome of the findings and the importance to your project.

We all want to be millionaires right? So calculate the value of x (number of items needed to sell) to make \$1,000,000 in profit.

Show your work

- I. Description:**
Short explanation/description of the project with reason chosen. 1 pt. _____
- II. Cost Function Template:**
Production (variable) cost per x including detail of items in this cost. 2 pt. _____
Start-up (fixed) cost including detail of items in this cost. 2 pt. _____
- III. Revenue:**
Selling price with reasoning. 2 pt. _____
- IV. Findings:**
- Cost function equation in terms of x 1 pt. _____
 - Cost accurately computed for x=250 1 pt. _____
 - Cost accurately computed for x=2000 1 pt. _____
 - Description of cost. 1 pt. _____
 - Average cost per item equation in terms of x 1 pt. _____
 - Average cost per item accurately computed for x=250 1 pt. _____
 - Average cost per item accurately computed for x=2000 1 pt. _____
 - Description of average cost per item including relationship between x values. 2 pt. _____
 - Revenue function equation in terms of x 1 pt. _____
 - Revenue accurately computed for x=250 1 pt. _____
 - Revenue accurately computed for x=2000 1 pt. _____
 - Description of revenue. 1 pt. _____
 - Profit function equation from revenue/cost calculations 1 pt. _____
 - Profit accurately computed from revenue/cost calculations for x=250 1 pt. _____
 - Profit accurately computed from revenue/cost calculations for x=2000 1 pt. _____
 - Description of profit from revenue/cost calculations 1 pt. _____
 - Profit function equation in terms of x 1 pt. _____
 - Profit accurately computed from function for x=250 1 pt. _____
 - Profit accurately computed from function for x=2000 1 pt. _____
 - Description of profit from function equation 1 pt. _____
 - Break-Even Point accurately computed/labeled 2 pt. _____
 - Description of Break-Even Point 1 pt. _____
- V. Conclusion:**
Short summary of the outcome of your findings and importance to your project. 1 pt. _____
- Overall project follow guidelines in a well thought-out, mathematically correct format. 3 pt. _____
- **BONUS**** 3 pt. _____

TOTAL

35 pt. _____