

T Shirt Project

Name(s):

Period:

Objective:

Your class is tasked with consulting with the class of 2017 regarding the viability of making t shirts as a class fundraiser. You will develop cost and revenue equations and use them to help inform the Class of 2017 on whether it is a "good idea" to make shirts as part of a class fundraiser. You will also include a list of concerns and considerations from your market research.

Part 1: Costs

- 1) List the costs of making shirts. Denote which costs are *variable* costs (change as the number of shirts change)
- 2) How much money would it cost to produce *one* shirt? *Two* shirts? *10* shirts? How much would it cost to produce x number of shirts (this is your **cost equation**)?
- 3) Based off of your sales projections, how many t shirts should the class produce? Justify your answer.
- 4) What would be the **total cost** for producing that many shirts? Show your work.

Part 2: Revenue and Sales

- 5) Is there a relationship between the *price* of a t shirt and the number of t shirts sold (*sales*)? If so, please describe.

- 6) Provide the class of 2017 with two pricing options that will lead to the **most revenue** ($R = \text{Sales} \times \text{Price per shirt}$). Explain why you feel that these two prices will lead to the most *revenue*.
- 7) Provide the Class of 2017 with two pricing options that will lead to the **least revenue**. Explain why these prices would likely lead to little (or zero) *revenue*.
- 8) Using your recommended sales price per shirt. How much revenue would the class of 2017 make if they sold *one shirt*? *Two shirts*? *10 shirts*? How much *revenue* would they generate if they sold x shirts (this is your *revenue equation*)?

Part 3: Conclusions and Recommendations

- 9) Using your *total cost* figure that you got from #4 and the *revenue equation* that you generated in #8. How many *t* shirts would the class of 2017 need to sell in order to *break-even* (hint: When does $\text{costs} = \text{revenue}$)?
- 10) How many shirts would the Class of 2017 need to sell to *break-even* if they produced your recommended number of shirts