Cutting Corners Task

In order to cut corners, the Pizza Barn has hired you to help them switch to circular pizzas. Their goal is to mislead the customers into buying three smaller circular pizzas, which is overall less pizza for the same price as a large circular pizza. The deal is $15 for three small circular pizzas or $15 for one large circular pizza. Your task is to advise the owners of the Pizza Barn on what size pizzas they should make to help them generate the most money on the deal promoting three small pizzas (all pizzas have identical toppings).

Part 1

Calculate sizes for the circular pizzas that will satisfy Pizza Barn requirements. Include all mathematical evidence and a scale model on an 8.5 x 11 inch paper with an appropriate scale to support your reasoning. (Use 3.14 for pi.)

Part 2

Pizza Barn also needs to consider the cost of pizza boxes. Cardboard for the boxes costs $0.01 per square inch, and all of Pizza Barn’s boxes are 1 inch high. You will need to calculate the cost of the pizza boxes, and provide an analysis of how the cost may affect Pizza Barn’s profits. Does this new information change your recommendation? Do you think Pizza Barn should restrict their offer to customers who are not doing “take out” orders? Explain your reasons in Part 3.

Part 3

Present your findings to the owners of Pizza Barn. Include the cost analysis for the pizzas and the pizza boxes for their advertised deal. Be sure to include all of your mathematical evidence and your scale drawing to support your recommendations.

You may present your findings in a letter, a poster, or a slide presentation.