

Pizza Cost & Revenue

NSCC has contracted your favorite pizza parlor, Peppy's Pizzeria, to cater lunch this Thursday. You estimate initial costs at \$80 to hire helpers, a delivery van, and the usual gas oven expenses.

The cost for flour and toppings per each pizza is \$2.00.

1. Write a cost function that inputs n number of pizzas made and outputs your total catering costs. $\text{Costs} = f(\# \text{ of pizzas}) = f(n)$.
2. How much will it cost you to make 20 pizzas for lunch on Thursday? Show this using your function.
3. How many pizzas can you make on Thursday for \$200?
4. Make a graph of cost per pizza plus initial costs.
5. If you divide up each pizza into 8 slices and sell each slice for \$1.00, write a function R that outputs the revenue received from selling n number of pizzas.
6. How much will you receive if you sell all 20 pizzas? Show this using your function.
7. On the same graph with your cost function, draw a graph of revenue per pizza sold.
8. Write a function P that outputs the profit from selling n pizzas.
9. How many pizzas did you need to sell to break even?
10. How many pizzas did you need to sell to make \$100?