

Answer on Question #59701 – Math – Algebra

Question

A restaurant offers a new promotion of 20% off the original price of cheese pizzas, which is \$12. Before the promotion 250 pizzas were sold each day. After the promotion, the sale of pizza increases an average of 18% more per day.

How much more or less does the restaurant make each day in pizza sales after the promotion?

Solution

If in case of new promotion of 20% off the original price of cheese pizzas, which is \$12, the sale of pizza increases an average of 18% more per day from 250 pizzas, then the total change in pizza sales (total revenue, TR) per day after the promotion is

$$\text{Change in TR} = P_2 * Q_2 - P_1 * Q_1 = \$12 * 0.8 * 250 * 1.18 - \$12 * 250 = -\$168.$$

So, the restaurant makes \$168 less each day in pizza sales after the promotion.

Answer: \$168 less.