

Name: _____

Check Your Understanding
Patterns of Change Quiz Review

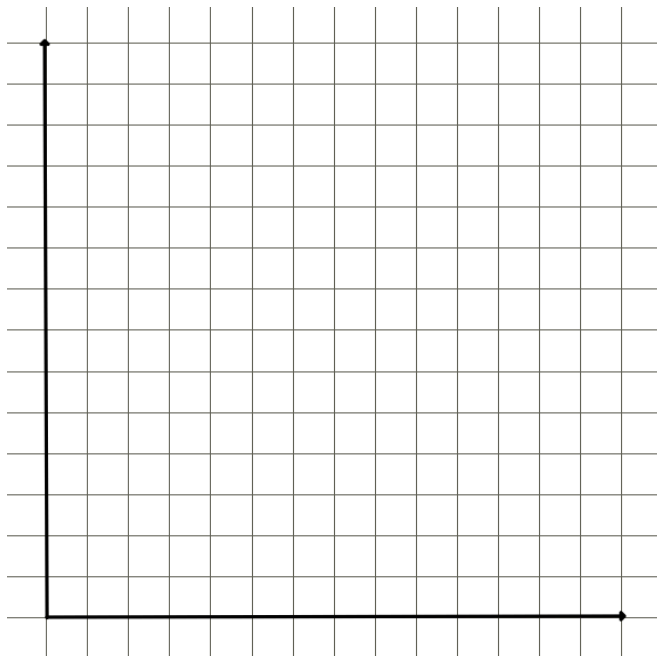
The design staff at Five Star Amusement Park had another idea—selling raffle tickets for chances to win prizes. The prize-winning tickets would be drawn at random each day.

1) Suppose that a market research study produced the following estimates of raffle ticket sales at various prices.

Price per Ticket(\$)	1	2	3	4	5	10	15
# of Tickets Sold	900	850	800	750	700	450	200

a) Plot the (price per ticket, number of tickets sold) estimates on the graph.

Because the # of tickets sold depends on the set price, the price will go on the x-axis and the # sold will go on the y-axis.



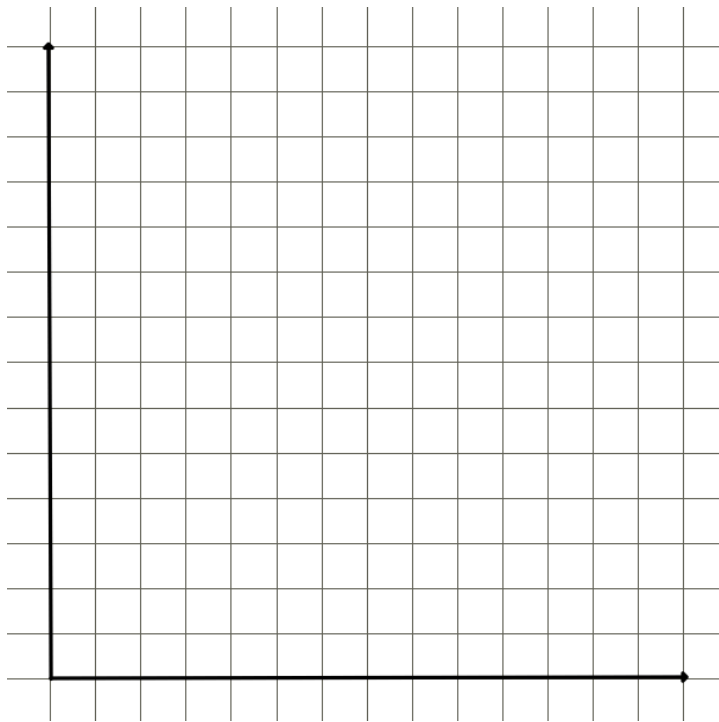
b) Describe the pattern shown between the # of tickets sold and the set price?

c) Does the rule $N = 950 - 50p$ produce the same values found by the study? Explain why.

2) Use the data in #1 to find the estimated income from raffle ticket sales at each of the proposed ticket prices.

Price per Ticket(\$)	1	2	3	4	5	10	15
# of Tickets Sold	900	850	800	750	700	450	200
Income(\$)							

a) Plot the (price per ticket, income) estimates on the graph.



b) Describe the relationship between price and income. Explain how it is shown in the table and graph.

c) According to your results what should the ticket price be set at to maximize the income? How is this shown in the table and graph?