

Homework #22

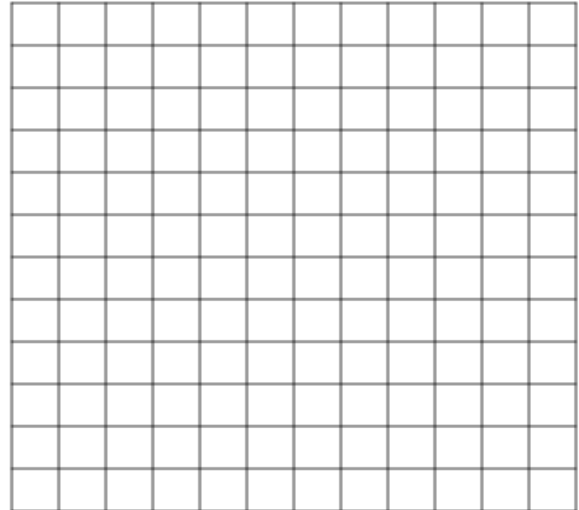
Due Friday, March 13

Name _____ Buckley or Gietzen

1. Use the table below to answer the following questions.

Roller Rink Fees

Minutes	Cost
30	\$3.50
60	\$7.00
90	\$10.50
120	\$14.00
150	\$17.50
180	\$21.00



- a. What are the two variables? _____ and _____

- b. Which variable is the **independent** variable? _____. (Label this on the x-axis on the graph above. Then label the *dependent* variable along the y-axis.)

- c. To determine the **scale** (what numbers to count by), first look at the numbers under Minutes:
What is the smallest number? _____ What is the greatest number? _____
Now count the number of lines along the x-axis. What number should we count by along the x-axis? _____

- d. Go through the same step above to determine the **scale** for Cost, along the y-axis.

- e. Plot the points on the graph.
What would you *estimate* the cost of 100 minutes to be? _____

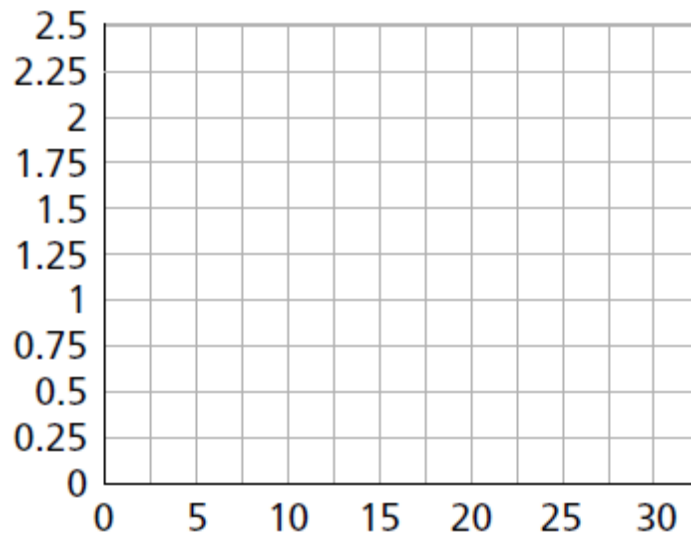
- f. Fill in the blanks with either **INCREASES** or **DECREASES**:
As the number of *minutes* _____, the *cost* _____.

2. Mrs. Gietzen kept track of her distance while walking for 30 minutes.

Time (minutes)	0	5	10	15	20	25	30
Distance (miles)	0	0.4	0.75	1.1	1.25	1.9	2.3

a. What are the two variables? _____ and _____

b. Graph the data from the table on the axes below. Don't forget to **Label** the x and y-axis with the correct **variables**.



c. During what 5-minute time period did Mrs. Gietzen make the **most** progress (go the furthest)?

_____ to _____

How do you know?

d. During what 5-minute time period did she make the **least** progress?

_____ to _____

How do you know?

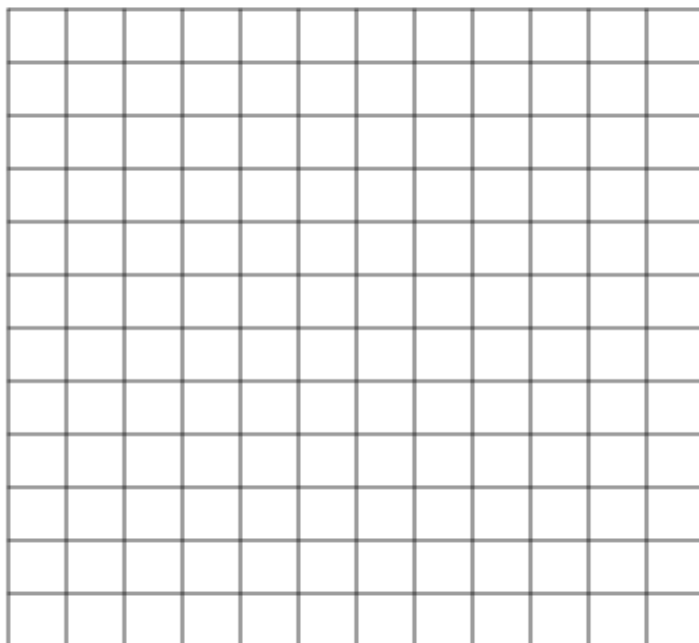
3. Here are the box-office earnings for a movie during each of the first eight weeks following its release.

Box Office Earnings

Weeks in Theaters	1	2	3	4	5	6	7	8
Weekly Earnings (millions)	\$16	\$22	\$18	\$12	\$7	\$4	\$3	\$1

- a. What is the **independent** variable? _____ And the **dependent** variable? _____

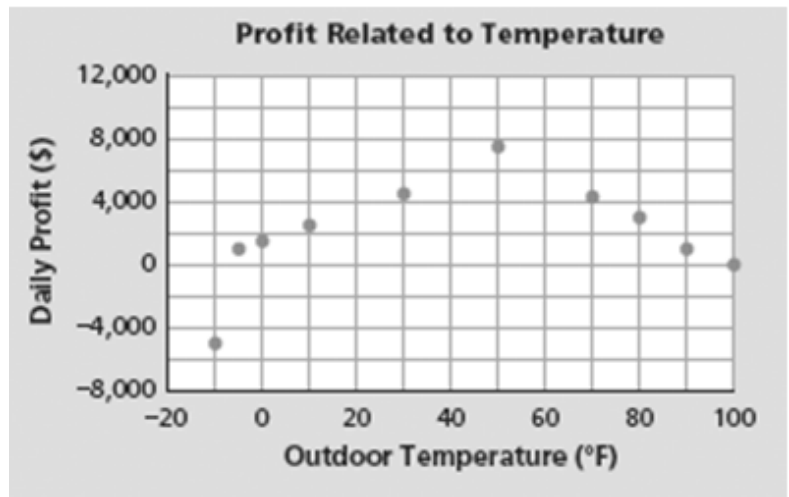
- b. Make a coordinate graph showing the weekly earnings after each week.



- c. Explain how the weekly earnings changed as time passed.

- d. What were the **total** earnings of the movie in the eight weeks? _____

4. The graph at the right shows the relationship between daily profit and outdoor temperature at an indoor water park on ten days at various times of the year.

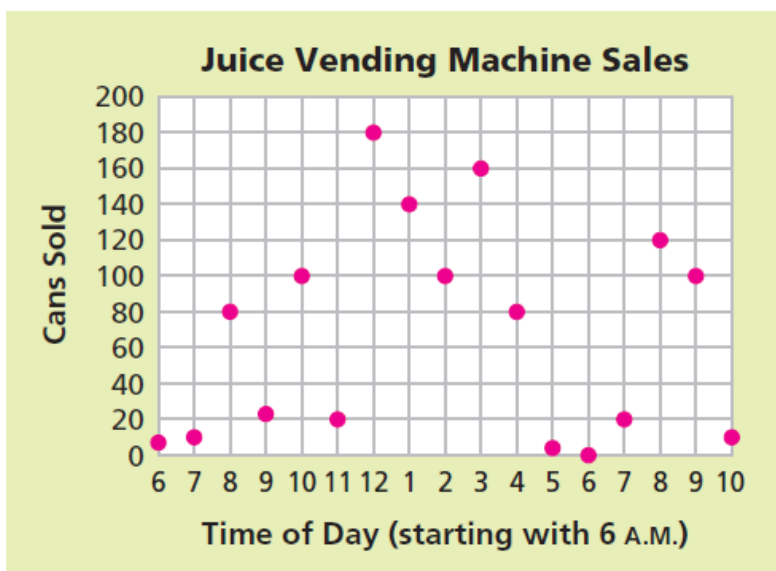


a. At what **temperature** was the profit the highest?

b. At 100°F, what was the profit?

c. Describe the pattern relating profit to outdoor temperature:

5. Use the graph to answer the following questions.



a. At what time were the **most** cans sold?

b. How many cans were sold at 3pm?

c. At what **two** times were 80 cans sold?