

Name: _____



Date: _____ Per: _____

**** This is a 2-page document! ****

Directions: Determine whether the relationship has a positive, negative, or no relationship.

1. Running speed versus time to complete a marathon.

2. Birth year versus birth weight.

3. Population of a state versus number of seats in the House of Representatives.

4. Latitude versus average annual temperature.

For questions 5 and 6, graph the data on the grids provided below, then indicate the type of relationship shown.

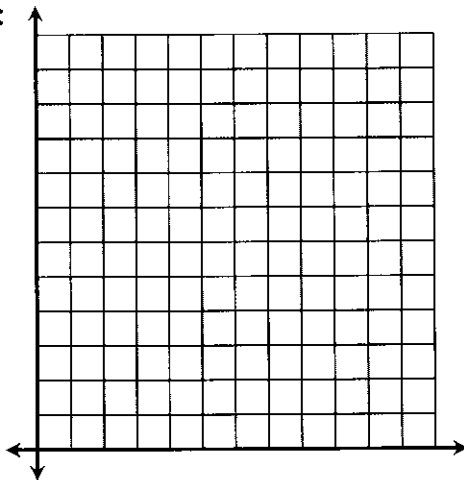
5. A student's birth month and their score on a recent science test:

Birth Month	7	4	12	9	3	9	10	8	1	5	2	11
Test Score	95	80	100	75	60	90	55	65	100	60	70	75

6. The weight of each person in a spin class and the number of calories they burned during the class:

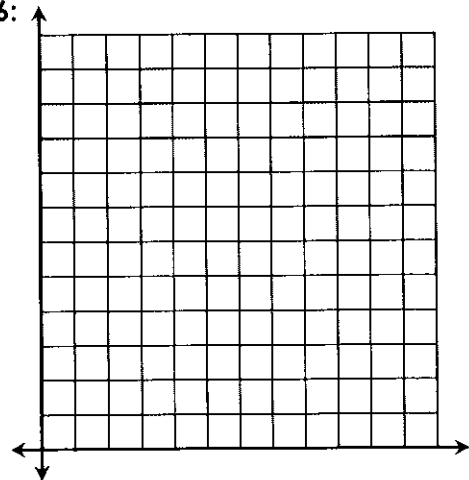
Weight	115	200	184	190	144	128	172	210	135	167	155	196
Calories	450	738	670	705	510	468	639	750	495	610	548	728

Graph for #5:



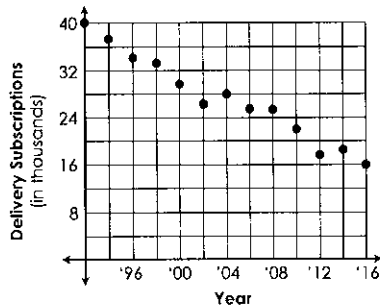
Relationship:

Graph for #6:



Relationship:

7. The graph below shows the number of households in a town that subscribe to a newspaper delivery service each year since 1992. Use the graph to answer the questions.



- a) In what year were there 28,000 newspaper delivery subscriptions?
- b) About how many newspaper delivery subscriptions were there in 1996?
- c) What relationship is shown by the data?



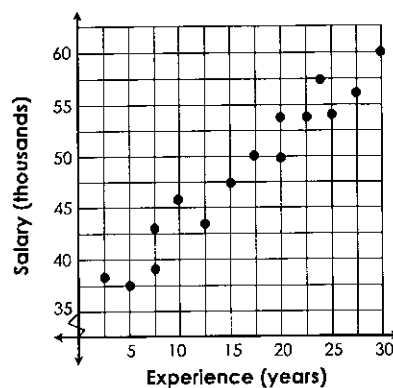
8. The graph to the right shows the salary each employee at a company along with their years of experience. Which line best represents this data?

Line A: $y = \frac{5}{6}x + 40$

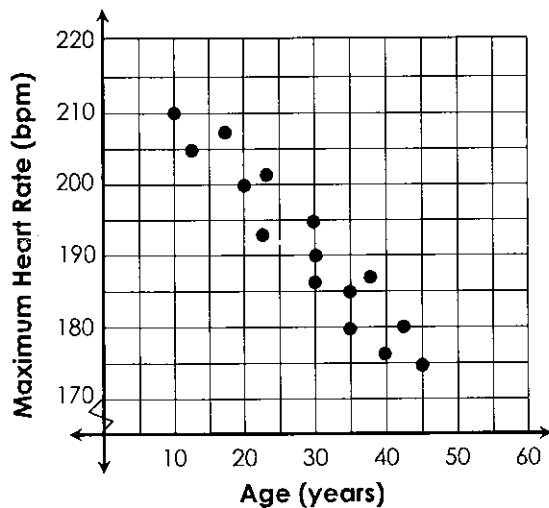
Line B: $y = \frac{5}{6}x + 35$

Line C: $y = \frac{6}{5}x + 40$

Line D: $y = \frac{6}{5}x + 35$



9. The graph below shows the ages of a group of people along with their maximum heart rates in beats per minute.



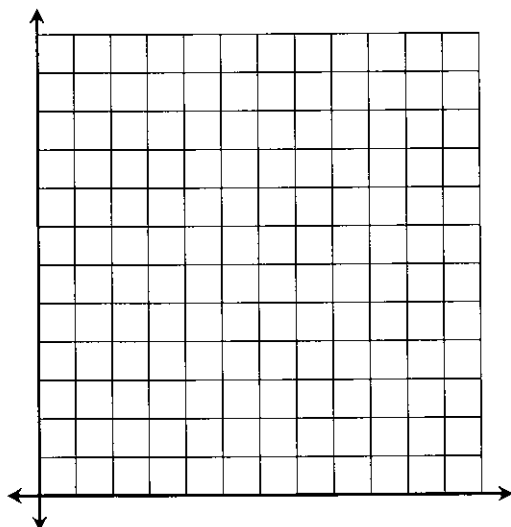
a) Write an equation for the line of best fit.

b) Estimate the maximum heart rate of someone who is 75 years old.

10. The table below shows the value of a baseball card each year since it was issued.

Year	0	1	2	3	4	5	6	7	8	9	10	11	12
Value (\$)	3	7	9	14	15	18	20	25	27	32	35	38	42

a) Draw a scatter plot to show the relationship.



a) Write an equation for the line of best fit.

b) Estimate the value of the card 25 years after it was issued.