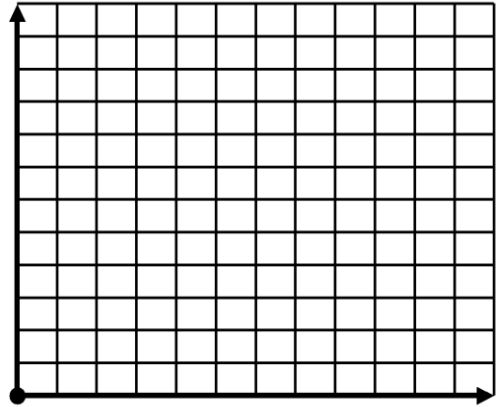


10. The table below shows the sales for a flower company for the years 2007 through 2012. Answer the given questions about this table on your answer sheet.

A) Graph the data on the scatter plot and draw a line of best fit for the data.

FLOWER SALES

Year	Sales (in thousands)
2007	\$305
2008	\$330
2009	\$345
2010	\$370
2011	\$395
2012	\$420

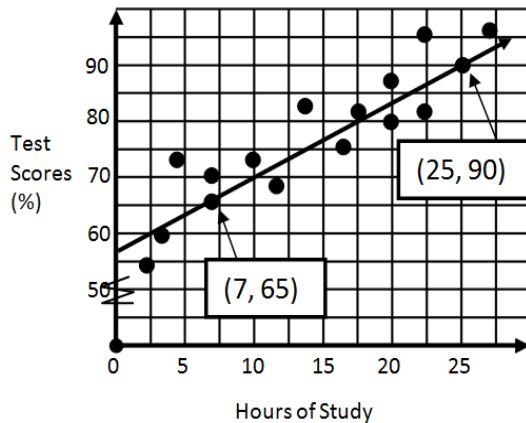


B) Write an equation for the line of best fit for this data. Let x represent the years since 2007 and y represent the sales, in thousands of dollars.

C) According to your equation, in what year will the sales reach about \$500 (in thousands)? Use mathematics to explain how you determined your answer.

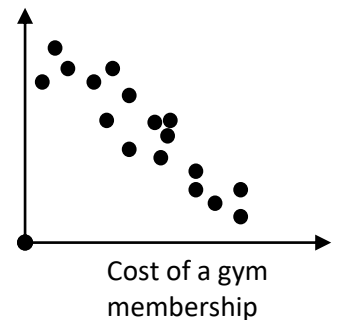
11. Mr. Van made a graph to represent the time his students spent studying for their test and their actual test score. Which is the correct equation for the line of best fit?

- A) $y = 1.4x + 55$
- B) $y = 1.4x - 84$
- C) $y = 0.72x + 60$
- D) $y = 0.72 + 56$



12. Which relationship is shown by this scatter plot?

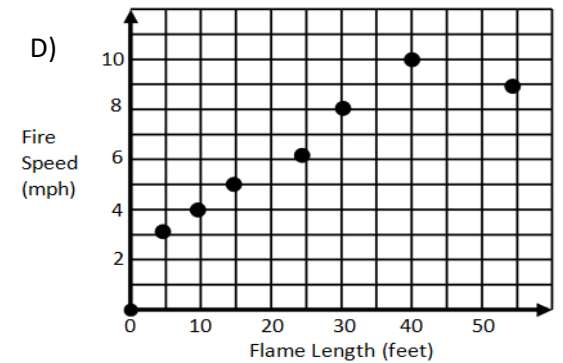
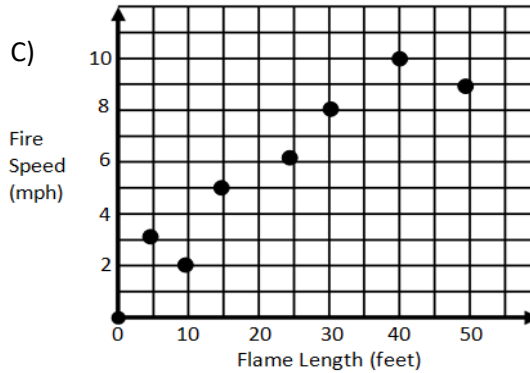
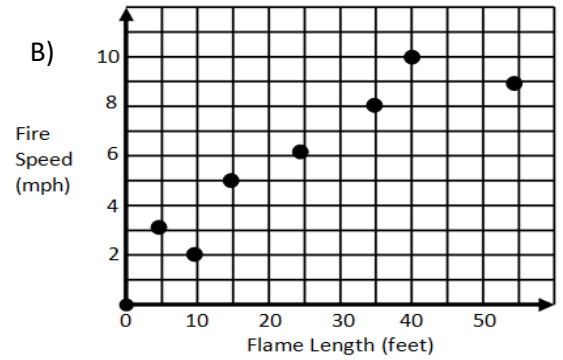
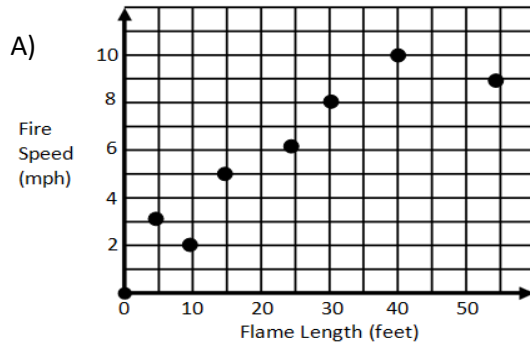
Number of new gym memberships sold



- A) As the cost goes down, the number sold goes down.
- B) As the cost goes up, the number sold goes down.
- C) As the cost does down, the number sold remains the same.
- D) There is no relationship between cost and the number sold.

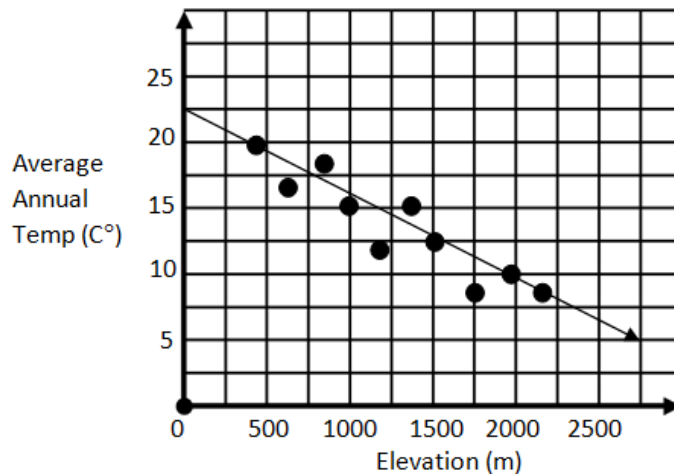
13. Which scatter plot best represents the data given in the table?

Flame Length	Fire Speed (mph)
10	2
40	10
15	5
5	3
55	9
30	8
25	6

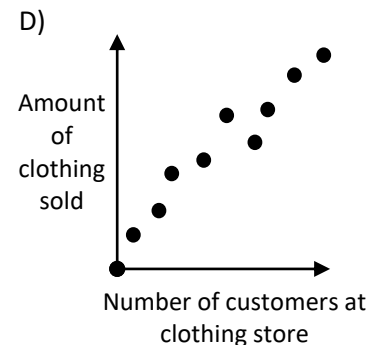
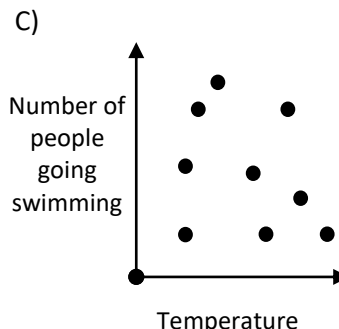
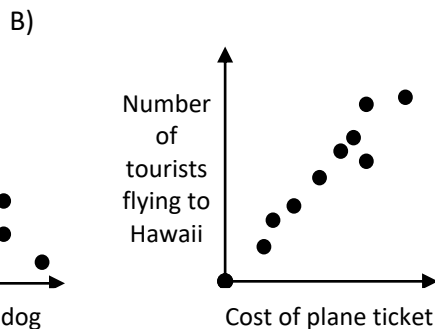
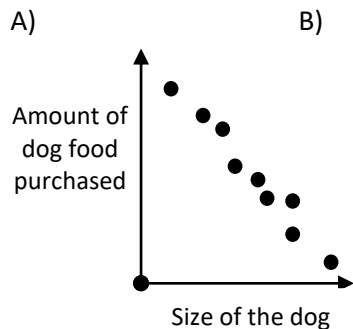


14. Given in the table and scatter plot are the samplings of average annual temperatures collected at different elevations in the United States. Pick two points from the line of best fit and determine the equation for the line of best fit.

Elevation (meters)	Average Annual Temp (°C)
1,000	15
490	20
2,200	8
650	17
1,750	8
1,500	12.5
800	18
1,400	15
2,000	10
1,200	12

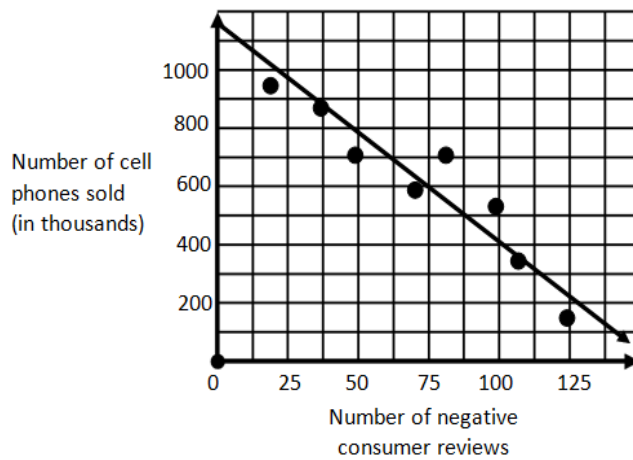


15. Which graph represents the correlation of its given situation correctly?



16. The following data table and scatter plot represent the number of negative customer reviews for a given model of cell phone and the total number of that same cell phone model that were sold. Answer the following TRUE or FALSE questions.

Number of consumer negative reviews	Number of cell phones sold (in thousands)
125	163
98	505
50	701
106	355
21	925
69	592
80	700
37	890

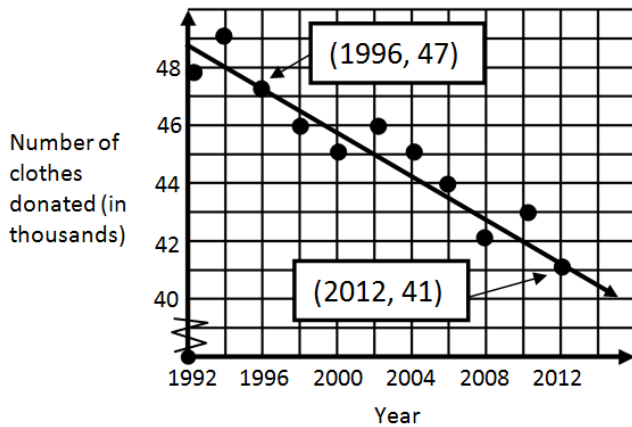


A) Points (37, 890) and (98, 505) are on the line of best fit: _____

B) This scatter plot represents a negative correlation: _____

C) It's reasonable to predict that if there are 75 negative reviews the number of cell phones sold of that same model will be close to 600,000. _____

17. Below is the number of clothes donated to New York City homeless shelters in the given years.



A) Determine the equation for the line of best fit using the given two points on the line of best fit, where x is the number years since 1992 and y is the number of clothes donated in thousands.

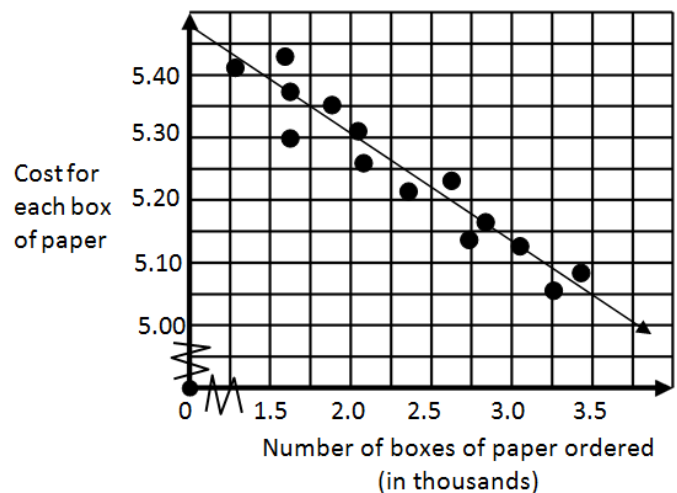
B) Using the equation for the line of best fit predict the year in which only 38,000 items of clothing will be donated to the homeless shelters in New York City.

18. A keyboarding instructor at a community college collected data comparing a student's age and their typing speed. The equation for the line of best fit is given as $y = -1.4x + 117.8$, where x is the "age in years" and y is the "typing speed."

If you are 25 years of age, what is your typing speed?

- A) 153 words per minute
- B) 83 words per minute
- C) 63 words per minute
- D) 102 words per minute.

19 At the Happy Paper company the more boxes of paper you order the cheaper the price you have to pay for each box of paper. Below are the prices charged per box of paper to different companies ordering various quantities of paper.

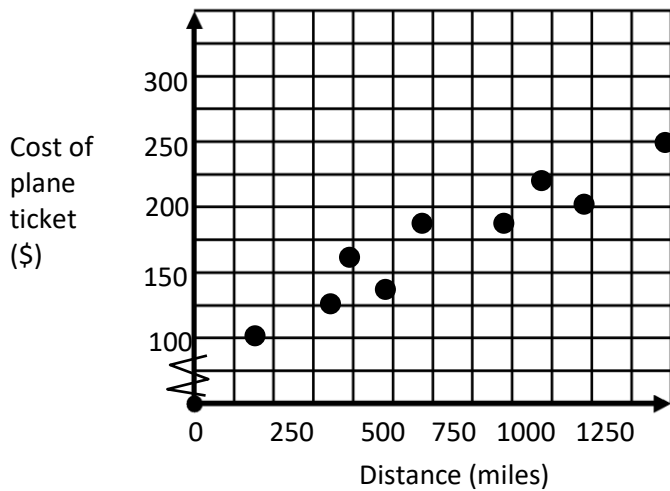


Using the line of best fit, if your company wants to only pay \$5.05 for each box of paper, how many boxes of paper should be ordered from Happy Paper company?

20. The table below shows the cost of flying from San Francisco to various other cities in the United States. There is a relationship between the distance you are flying and the cost of your plane ticket. The data from the table is represented on the scatter plot.

Distance(miles)	600	374	1,240	725	150	1,100	950	1,500	500
Cost of the plane ticket (\$)	143	125	200	180	110	224	180	250	164

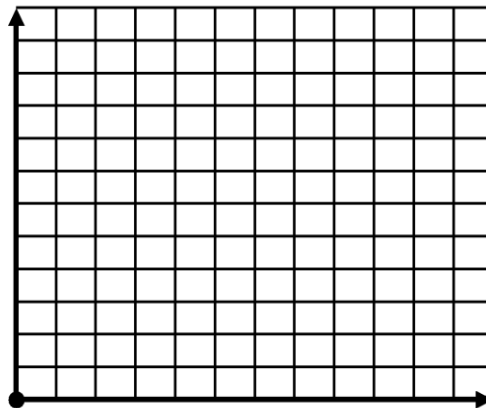
A) Draw a line of best fit and pick two good points from the table that are on your line:



B) Determine the equation for the line of best fit.

21. The table below shows how much water Nuria drinks and the average temperature for that day. A) Make for the given data table.

Temp (F°)	Water consumed in a day (oz)
99	48
85	27
97	48
80	16
92	32
88	34
94	40
83	20



22. Determine the correlation for each statement.

A) The number of people at your party and the number of sodas you have in the refrigerator.

B) The amount your drive to school and the amount you have to pay for gas.

C) The size your dog and the number of times you take it to the vet.

B) What is the correlation? _____

23. The table below represents the number of powerboats registered in the given year.

Year	Powerboat Registrations (thousands)
1996	751
1997	797
1998	806
1999	805
2000	841
2001	903
2002	923

The equation for the line of best for this data is given as $y = 27x + 751$, where x is the years since 1996, and y is the total powerboat registrations.

Using the given equation for the line of best fit, which is a good prediction for number of powerboat registrations in 2015?

