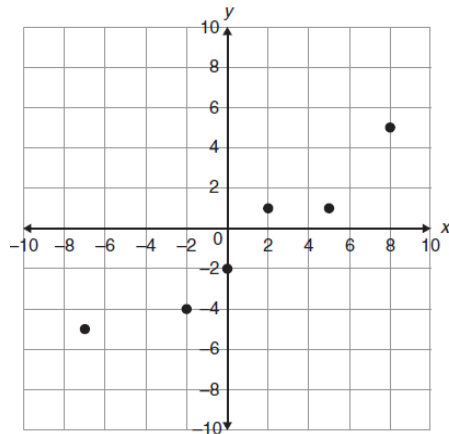**For the following data sets, create a scatter plot and find a line of best fit.**

1. (1, 2), (3, 3), (4, 4), (6, 5), (8, 6), (9, 8)
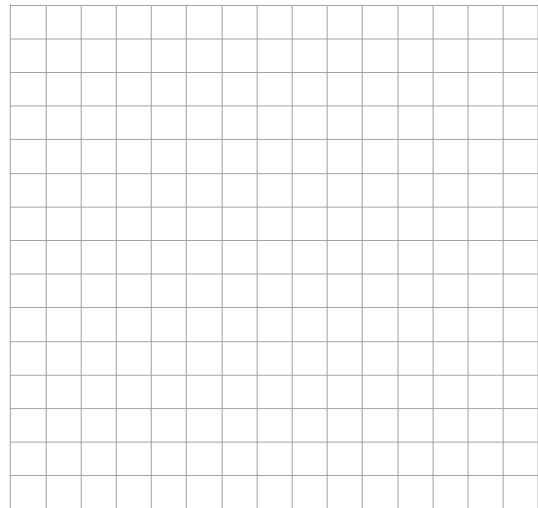
2.

3. The chart below shows the study time for students and how that affects their test scores.

Study Hours	3	2	5	1	0	4	3
Grade	84	77	92	70	60	90	75

    a.   If someone wanted to make 100 on the test, how long would they have to study for?

    b.   If someone made a 65 on the test, how many hours did they study?

**4.** The table shows the number of cases of Foodborne Botulism in the United States for the years 2001 to 2005.

U.S. Foodborne Botulism Cases				
Year	2001	2002	2003	2004	2005
Cases	39	28	20	16	18

U.S. Foodborne Botulism Cases

a. How many cases of foodborne botulism can you predict in the year 2008?

b. If the number of cases of foodborne botulism was 52, what year was the data collected?

5. The table shows the average and maximum longevity of various animals in captivity.

Longevity (years)								
Avg.	12	25	15	8	35	40	41	20
Max.	47	50	40	20	70	77	61	54

Animal Longevity (Years)
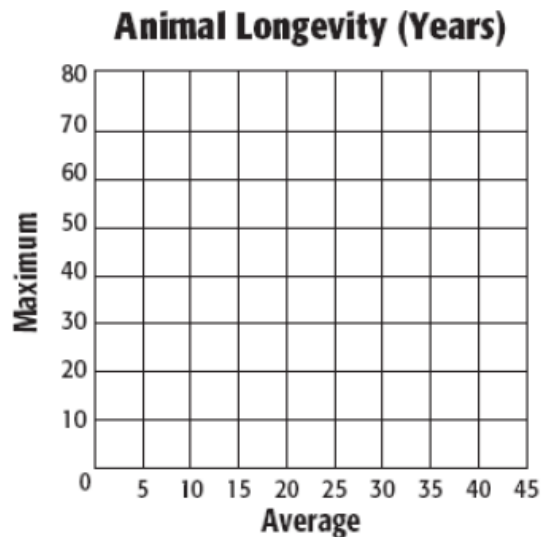
a. If an animal has an average longevity of 30 years, what would the maximum longevity be?

b. If the maximum longevity of an animal is 30 years, what would the average longevity be?