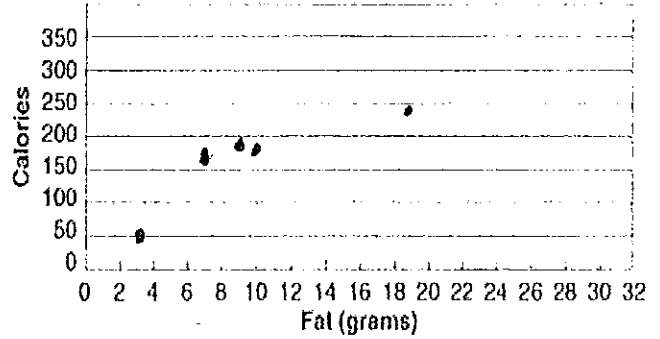


Calories and Fat Per Portion of Meat & Fish

	Fat (grams)	Calories
Fish sticks (breaded)	3	50
Shrimp (fried)	9	190
Tuna (canned in oil)	7	170
Ground beef (broiled)	10	185
Roast beef (relatively lean)	7	165
Ham (light cure, lean and fat)	19	245

Calories and Fat Per Portion of Meat and Fish



1. Draw the scatter plot of the data.
2. Calculate the prediction equation using the linear regression on the calculator.
3. Find the correlation coefficient.
4. Use the prediction equation to find the calories in food with 15 grams of fat.
5. Find the residual for the point (10, 185).

$y = 10.34x + 72.72$

0.87

227.82 calories

$y = 10.34(10) + 72.72 = 176.12$
 $185 - 176.12 = 8.88$

8.88

Percent of Americans Owning Homes

Year	1950	1960	1970	1980	1990
Percent	55.0%	61.9%	62.9%	64.4%	64.2%

6. Calculate the prediction equation for the given data.
7. Find the correlation coefficient.
8. What is the largest residual for the data?
9. Using the prediction equation, what percent of Americans should be expected to own homes in 2010?
10. Using the largest residual, what range of percentages should be expected to be homeowners in 2010?

$y = 0.21x - 350.05$

0.85

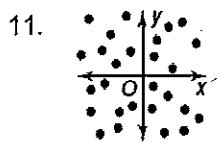
-2.5

72.05%

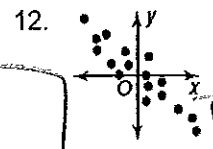
$y = 0.21(2010) - 350.05 = 72.05$

$72.05 \pm 2.5 = (69.55, 74.55)$

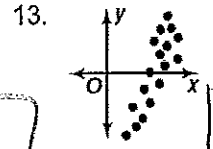
Determine whether the following graphs have a positive correlation, negative correlation or no correlation.



No correlation



Negative



Positive

Identify the type of sampling used (random, systematic, convenience, voluntary, stratified).

14. Every sixth person boarding an airplane gets thoroughly searched. Systematic
15. Each biology class randomly selects four students to fill out a questionnaire. stratified
16. A survey is mailed to every house in one neighborhood. Voluntary
17. All students in a class are assigned a number, then numbers are selected at random. random