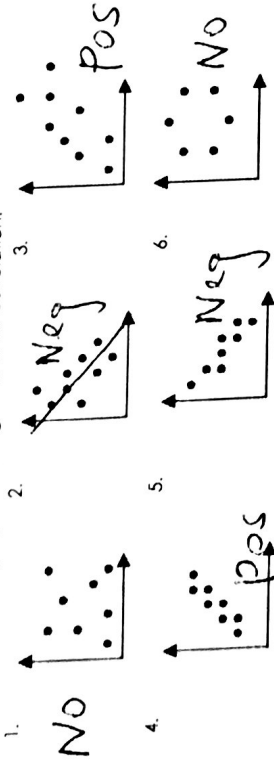


Practice with Scatter Plots

Classify the scatter plots as having a positive, negative, or no correlation.

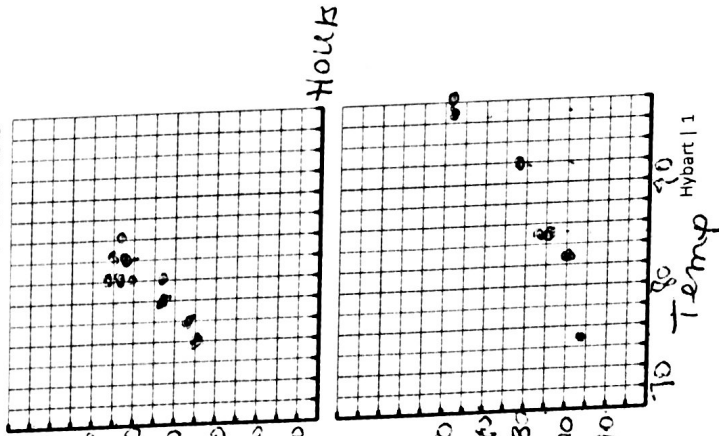


7. A history teacher asked her students how many hours of sleep they had the night before a test. The data below shows the number of hours the student slept and their score on the exam. Plot the data on a scatter plot.

Hours Slept	8	7	7	8	6	5	7	4	9	7
Test Score	83	86	74	88	76	63	90	60	89	81

8. Assume that during a three-hour period spent outside, a person recorded the temperature and their water consumption. The experiment was conducted on 7 randomly selected days during the summer. The data is shown in the table below.

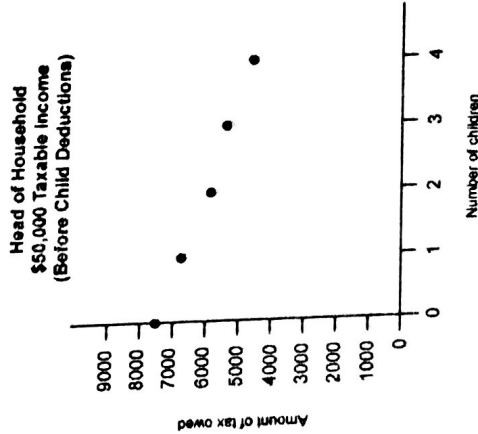
Temperature (F)	Water Consumption (oz)
99	48
85	27
97	48
75	16
92	32
85	25
83	20



Identify the data sets as having a positive, a negative, or no correlation.

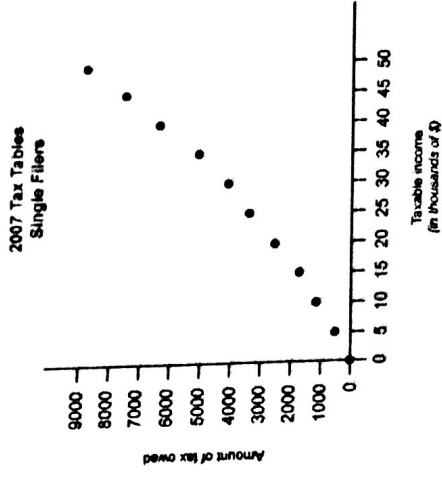
- The number of hours a person has driven and the number of miles driven. **Pos**
- The number of siblings a student has and the grade they have in math class. **No**
- The age of a car and the value of the car. **Neg**
- The number of weeks a CD has been out and the total sales. **Pos**
- The number of years a person went to school and their income. **Pos**
- The number of songs downloaded on your i-pod and the amount of memory available. **Neg**
- The amount of time spent on the computer instant messaging your friends and the number of computers in your house. **No**
- The age of a house and the number of people living in the house. **No**

17. Consider the following graph. Who are the subjects in the study? What are the explanatory and response variables?



Subjects: **Head of House**
 Exp: **# of kids**
 Resp: **tax owed**

18. Consider the following graph. Who are the subjects in the study? What are the explanatory and response variables?



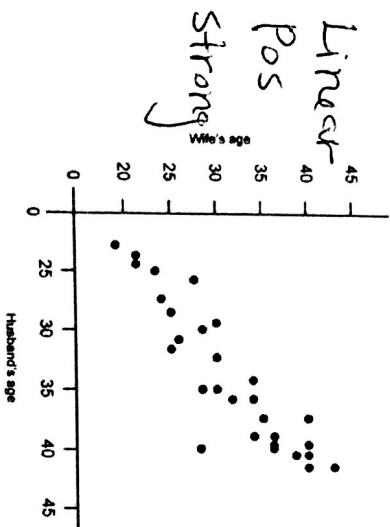
Subjects: **Singlu Filers**
 Exp: **Taxable Income**
 Resp: **Tax owed**

When analyzing a display of bivariate statistics, you need to consider the following:

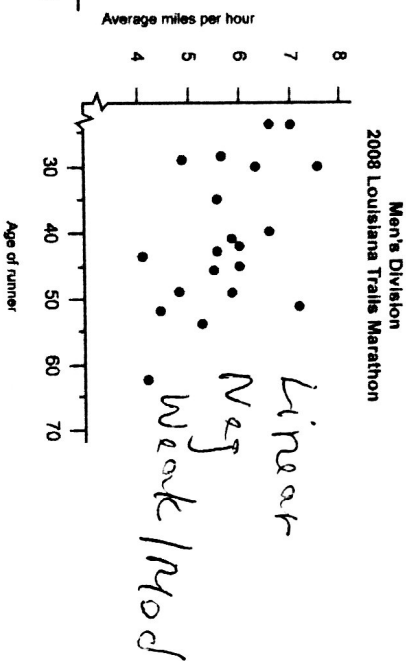
- **Shape**—Does the graph exhibit a **linear** or **nonlinear** pattern?
- **Direction**—Does the graph exhibit a **positive** relationship, a **negative** relationship, or **neither**?
- **Strength**—Are the data points tightly clustered along the line or curve (**strong correlation** or **moderately strong correlation**) or are they more scattered (**weak correlation** or **moderately weak correlation**)?

Using these guidelines, analyze the following graphical displays. Conduct your analysis in the context of the situation.

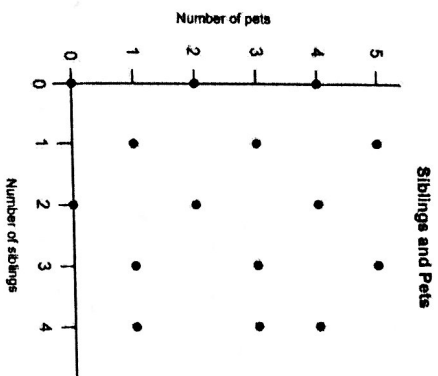
19. Identify the shape, direction, and relative strength.



20. Identify the shape, direction, and relative strength.



21. Identify the shape, direction, and relative strength.



22. Identify the shape, direction, and relative strength.

