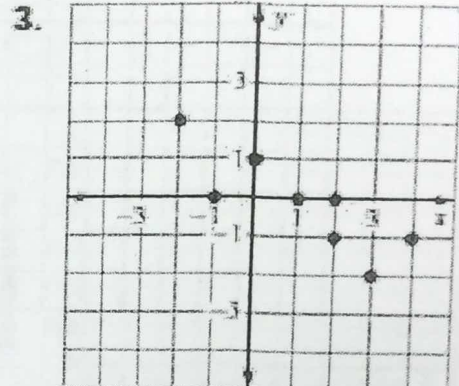
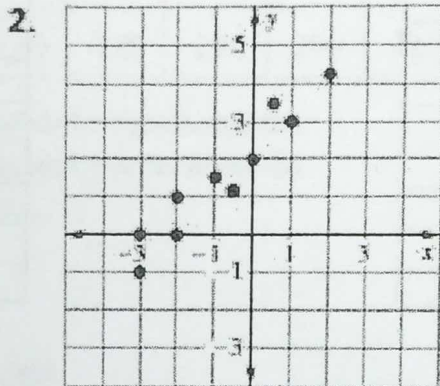
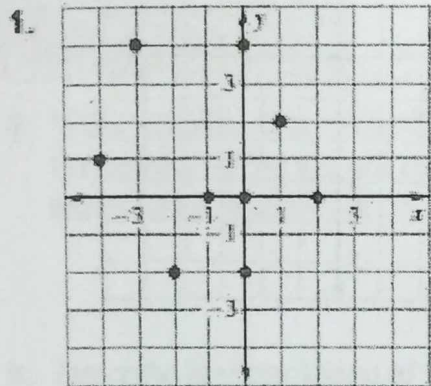


Scatter Plots and Line of Best Fit

Worksheet

Tell whether x and y show a *positive correlation*, a *negative correlation*, or *relatively no correlation*.

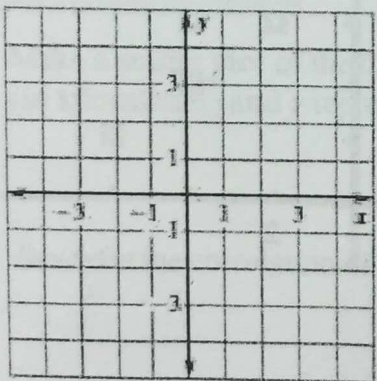


Calculator Activity

Adjust calculator's graphing window so that it matches the grid, then create a scatter plot for the given table. Draw a line of best fit and write an equation for the line.

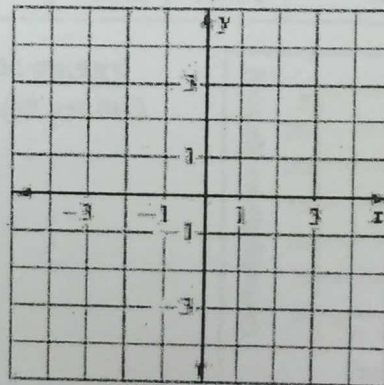
4.

x	-2	-1	0	1	2	3
y	4	2	1	-2	-1	-2



5.

x	0	0	0.5	1.5	2	2.5
y	-4	-3	-1.5	1	3	4

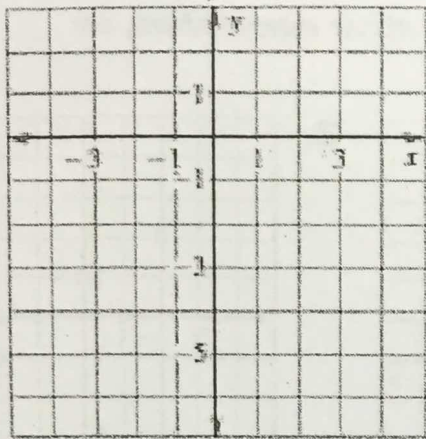


Equation: _____

Equation: _____

6.

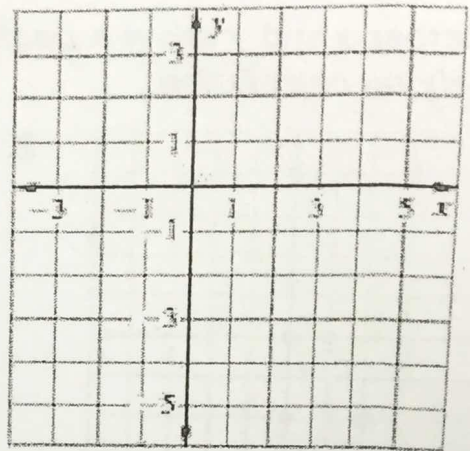
x	-3	-2	-1	0	1	2
y	1	-1	0	-2	-4	-5



Equation: _____

7.

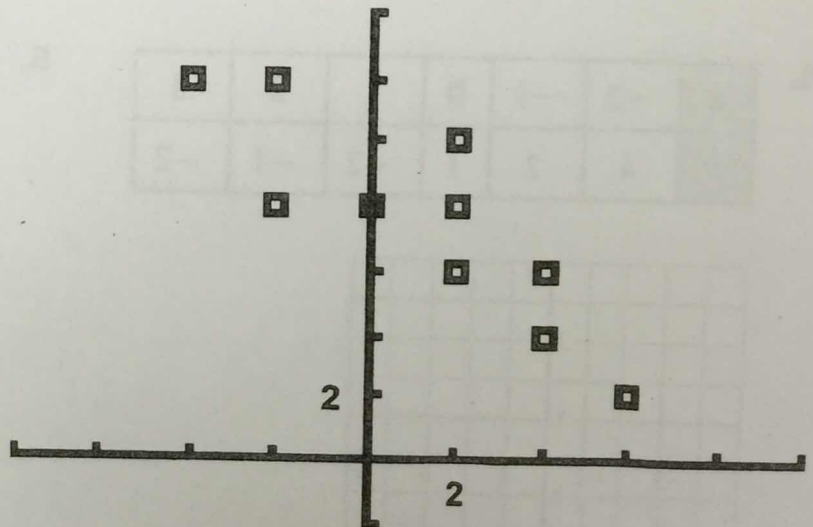
x	0	4	3	2	1	0
y	-3	-2	0	-1	1	1



Equation: _____

8. Which equation best models the data in the scatter plot?

- A. $y = -x - 6$
- B. $y = x - 6$
- C. $y = -x + 8$
- D. $y = x + 8$

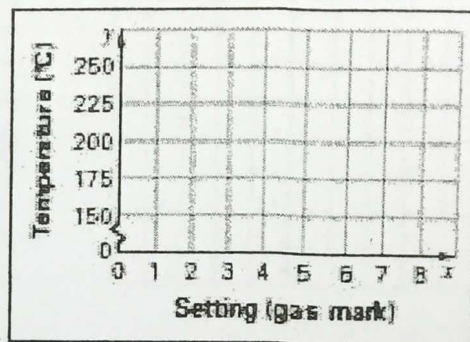


Use calculator to help answer the following problems. Adjust the calculator's graphing window so that it matches (as much as possible) the grid in the problem.

9. **Thermostat** The table shows the thermostat setting (in units called gas marks) on a British gas oven and the corresponding temperature in degrees Celsius.

Setting (gas mark)	2	3	4	5	6	7	8
Temperature (°C)	150	160	180	190	200	220	230

- a. Make a scatter plot of the data where x represents the thermostat setting (in gas marks) and y represents the temperature (in degrees Celsius).



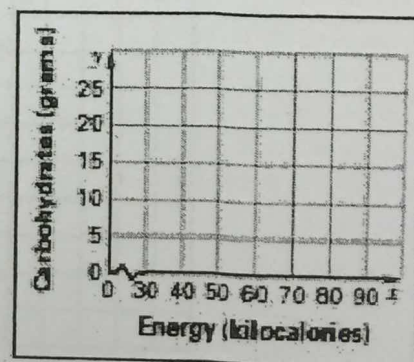
- b. Describe the correlation of the data.

- c. An oven set to gas mark 10 heats to a temperature of 260°C . Does this fit the trend shown by your scatter plot? Explain your reasoning.

10. **Fruits** The table shows the amount of energy (in kilocalories) and the amount of carbohydrates (in grams) in a 100-gram serving of different fruits.

Fruit	Apple	Banana	Blueberries	Kiwi	Pear	Strawberries	Mango
Energy (kcal)	59	92	56	61	59	30	65
Carbohydrates (g)	15.25	23.43	14.13	14.88	15.11	7.02	17

- a. Make a scatter plot of the data where x represents the energy (in kilocalories) and y represents the carbohydrates (in grams).



- b. Describe the correlation of the data.

- c. A 100-gram serving of an avocado contains 161 kilocalories of energy and 7.39 grams of carbohydrates. Does an avocado fit the trend shown by your scatter plot? Explain your reasoning.