

**9.1**

# **Scatter Plots**

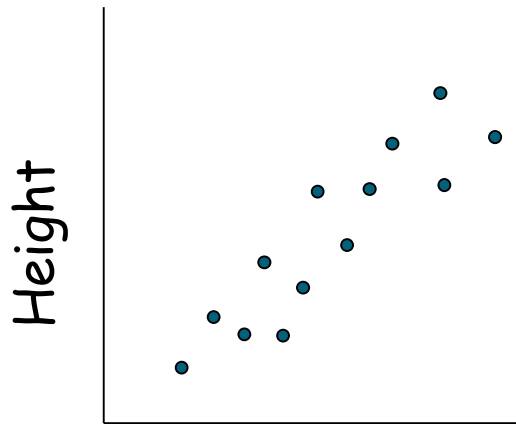
# Scatter Plots

Scatter plots are used to show whether there is a \_\_\_\_\_ between \_\_\_\_\_ sets of data. The relationship between the data can be described as either:

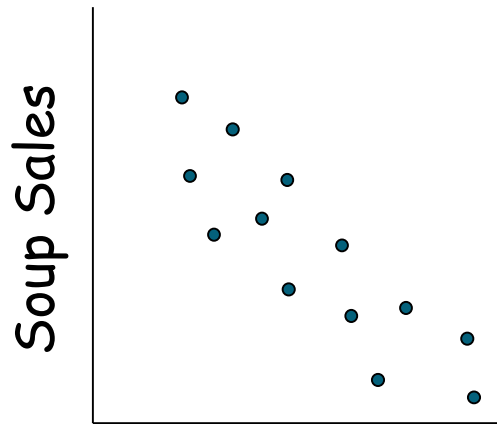
A **positive relationship**. As one quantity \_\_\_\_\_ so does the other.

A **negative relationship**. As one quantity \_\_\_\_\_ the other \_\_\_\_\_.

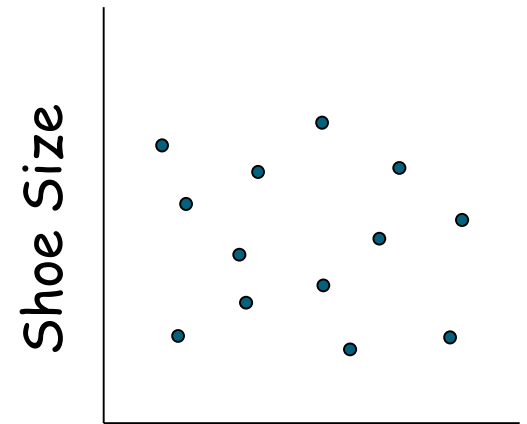
**No relationship**. Both quantities vary with \_\_\_\_\_ relationship.



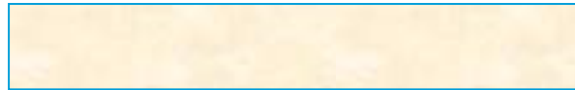
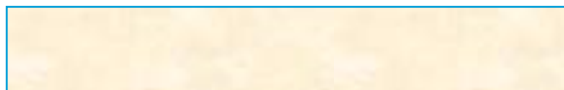
Shoe Size



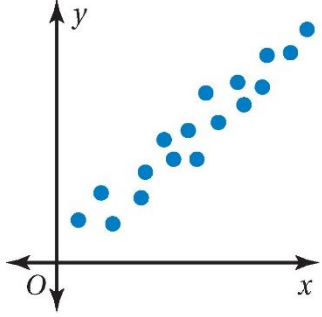
Temperature



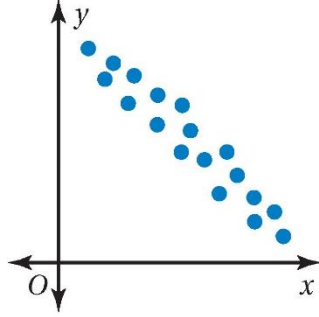
Annual Income



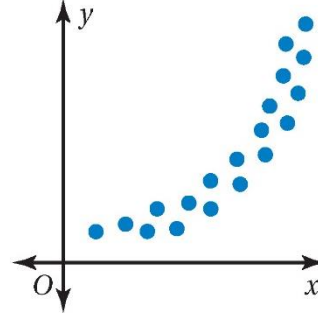
# Kinds of Scatter Plots



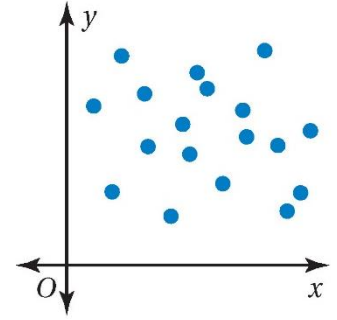
The points lie close to a line. As  $x$  increases,  $y$  increases.



The points lie close to a line. As  $x$  increases,  $y$  decreases.



The points lie in the shape of a curve.

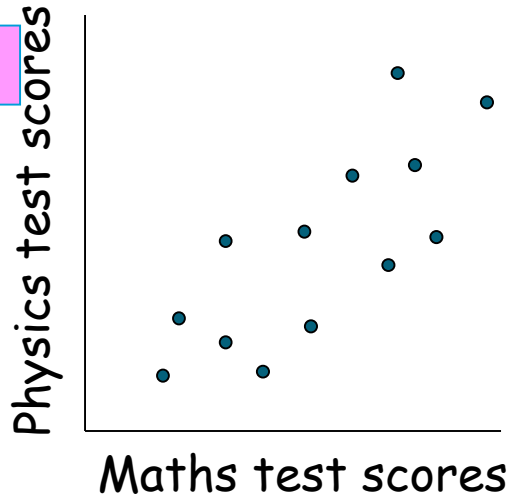


The points show no pattern.

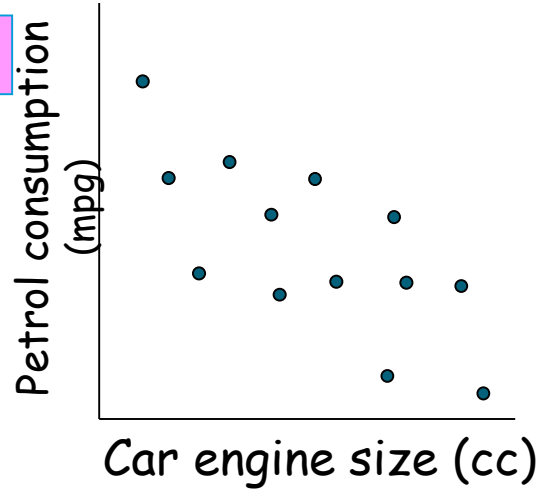


State the type of **correlation** for the scatter graphs below

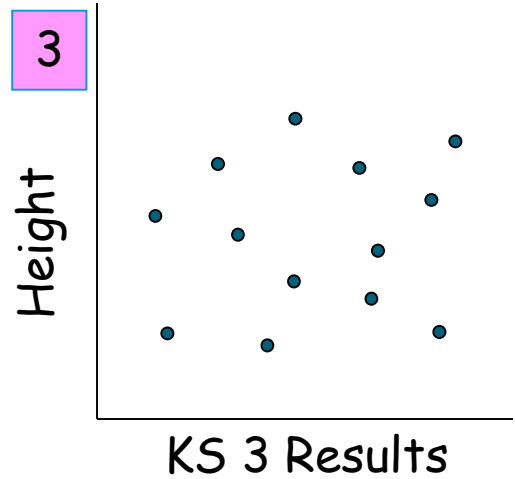
1



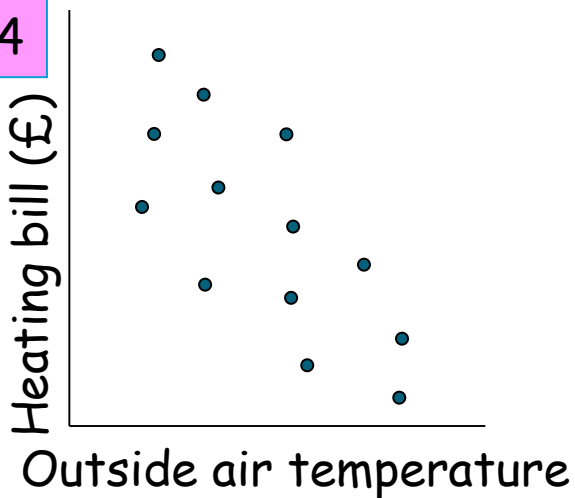
2



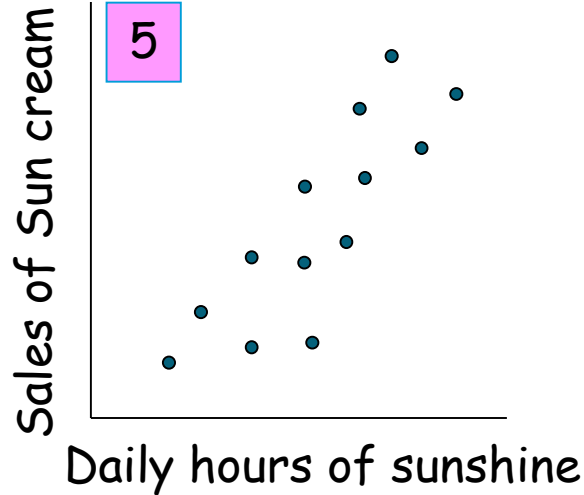
3



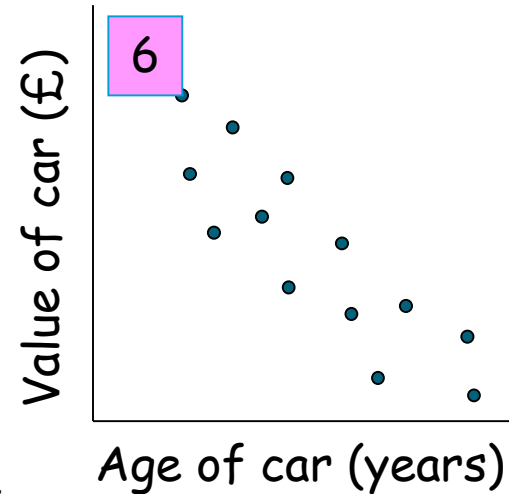
4



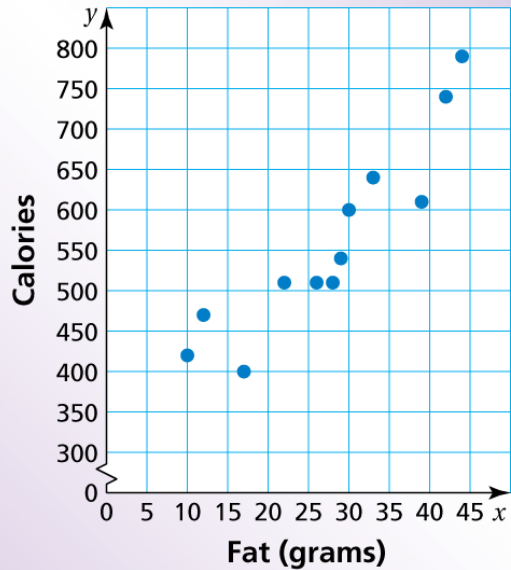
5



6



### Restaurant Sandwiches



The scatter plot at the left shows the amounts of fat (in grams) and the numbers of calories in 12 restaurant sandwiches.

a. How many calories are in the sandwich that contains 17 grams of fat?

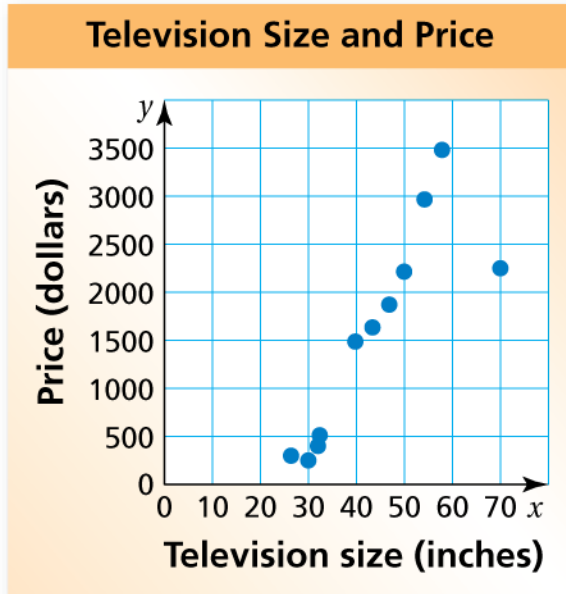
b. How many grams of fat are in the sandwich that contains 600 calories?



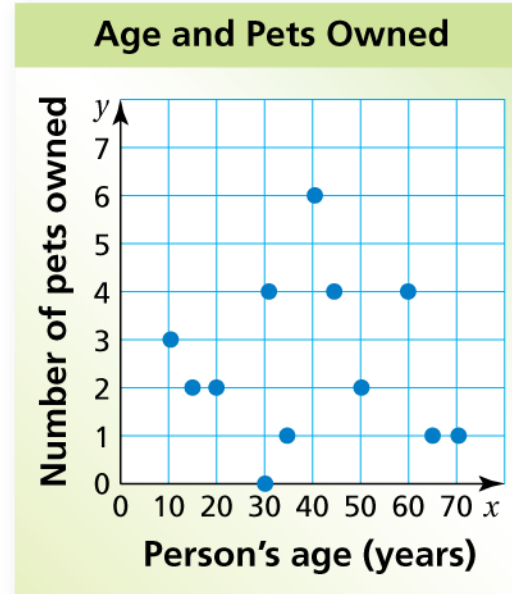
c. What tends to happen to the number of calories as the number of grams of fat increases?

**Describe the relationship between the data. Identify any outliers, gaps, or clusters.**

**a.** television size and price



**b.** age and number of pets owned



Describe the relationship between the data. Identify any outliers, gaps, or clusters.

