

How to Draw a Scatter Plot

The chart shows the number of hours studying for a math exam and the mark each student received, for 12 randomly selected students.

Number of Hours	4	5	2	0	3	6	2	3	1	5	2	2
Mark	85	87	68	43	66	91	61	70	50	84	64	58

To create a scatter plot of the data, you need to follow the following steps:

- decide which variable is the independent variable
- decide on a scale for each axis, then label the axes
- plot the points and give your graph a title.

Decide Which Is the Independent Variable

Since the number of hours of studying should affect the mark, number of hours is the independent variable and belongs on the horizontal axis.

Decide on the Scale

The number of hours ranges from 0 to 6. Label the horizontal axis with the numbers from 0 to 6, evenly spaced. Name this axis **Hours**.

The scale of the vertical axis does not need to match the scale of the horizontal axis. The marks range from 43 to 91. Depending on the size of your grid, you may wish to use a scale of 5 or 10. We used a scale of 10 units. Name this axis **Mark**.

Plot the Points

To graph each point, find the specific values on the horizontal and vertical axes, and extend upward and across and plot a point where the extensions meet. The ordered pair (4, 85) is illustrated on the graph. Do not label the ordered pair for each point. Name the graph **Exam Mark Versus Hours of Studying**.

