

Plot the Pairs

Turn paired data into clear scatterplots.

GRADE 8 • 8.PS.3.c

8.PS.3.c "Organize and represent numeric bivariate data using scatterplots with and without the use of technology."

NAME _____

DATE _____

PLOT EACH PAIR

A scatterplot shows paired numerical data. Put x-values on the horizontal axis and y-values on the vertical axis, then plot each pair. You may draw it on a grid or enter the pairs in graphing technology.

WORKED EXAMPLE

Make a scatterplot for x: posters made and y: votes earned: (51,71), (57,77), (63,83).

1. Label the horizontal axis posters made and the vertical axis votes earned.
2. Plot (51,71), (57,77), and (63,83).
3. Check that each x-value goes across and each y-value goes up.

Answer: Points plotted: (51,71), (57,77), (63,83).

PRACTICE 5 problems

- 1** On a grid, plot and label the axes for (0,4), (1,6), and (3,10).

ANSWER _____

- 2** Write ordered pairs, then plot the table: x: 2, 4, 6; y: 9, 5, 7.

ANSWER _____

- 3** A student plots (3,8) by moving 8 right and 3 up. State the correct moves.

ANSWER _____

- 4** Plot (0,3), (2,7), (4,8), and (6,11). Use a scale of 1 on both axes.

ANSWER _____

- 5** Plot this reading data: hours read, x: 1, 2, 4; pages read, y: 9, 14, 20.

ANSWER _____

APPLY IT Show your work

- 1** Kai tracks study time and quiz score. The pairs are (10,70), (20,75), (30,85), and (40,90), where x is minutes studied and y is quiz score. Make a labeled scatterplot.

WORK SPACE

ANSWER _____

- 2** A dance club tracks rehearsal days and songs practiced: (1,3), (2,6), (3,8), (4,11), where x is rehearsal days and y is songs practiced. Make a scatterplot by hand or with graphing technology.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A basketball player records practice sessions and free throws made: (1,6), (2,11), (3,15), (4,20), (5,24). Make a scatterplot. Then write exactly 2 sentences explaining why each x -value must stay matched with its y -value.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	On a grid, plot and label the axes for (0,4), (1,6), and (3,10).	Points plotted: (0,4), (1,6), (3,10).
2	Write ordered pairs, then plot the table: x: 2, 4, 6; y: 9, 5, 7.	(2,9), (4,5), (6,7)
3	A student plots (3,8) by moving 8 right and 3 up. State the correct moves.	Move 3 units right and 8 units up.
4	Plot (0,3), (2,7), (4,8), and (6,11). Use a scale of 1 on both axes.	Points plotted: (0,3), (2,7), (4,8), (6,11).
5	Plot this reading data: hours read, x: 1, 2, 4; pages read, y: 9, 14, 20.	Points plotted: (1,9), (2,14), (4,20).

PART 2 • APPLY IT

1. **Label x-axis minutes studied and y-axis quiz score. Plot (10,70), (20,75), (30,85), (40,90).** Use minutes studied for the horizontal axis and quiz score for the vertical axis. Plot each recorded pair.
2. **Label x-axis rehearsal days and y-axis songs practiced. Plot (1,3), (2,6), (3,8), (4,11).** The same ordered pairs are used whether the scatterplot is drawn by hand or made with technology.

CHALLENGE

Plot (1,6), (2,11), (3,15), (4,20), (5,24). Each ordered pair comes from one practice record. Mixing y-values with different x-values would create data that was not recorded.

Accept correctly labeled axes and accurately plotted points. Equivalent reasonable axis scales are acceptable when all points are placed correctly.