Name _____ Date _____ Period _____

Find the Equation of the Line of Best Fit

Sometimes a straight line does not pass through all of the points of a set of data that have been plotted, even though the points may suggest a line. A line can be drawn that "fits" through most of the points. This line is called the *line of best fit,* and it is drawn as close as possible to the plotted points.

To approximate the line of best fit, do the following:

- Plot the points.
- Use a ruler to sketch the line that fits the data.
- Locate two points on the line you have drawn.
- Use these two points to find the equation of the line of best fit.

Directions: For each set of data, plot the given points on graph paper, draw the line of best fit, and find the equation of the line of best fit.

1. Sandra is saving money for a trip. She read in a magazine that one way to save is to make purchases with paper money and not coins. Any change she would then receive could be saved in a cookie jar. Sandra followed this procedure and recorded the total amount of change she saved each week. After the first week, she had accumulated $2.00 in change, after the second she had accumulated $3.50, and so on as shown in the data below.

   (1, $2.00), (2, $3.50), (3, $7.00), (4, $8.00), (5, $9.75), (6, $10.99), (7, $15.00), (8, $17.25)

   The equation of the line of best fit is _____.