Minutes	Test Grade (y)		
Studied (x)			
15	50		
40	67		
45	75		
60	75		
70	73		
75	89		

Two Variable Statistics and Lines of Best Fit Mixed Practice Name:

1) The chart on the right shows the number of minutes studied and the grade received on a test. Determine the equation of the line of best fit for this data. Round to nearest hundredth.

 $\mathbf{y} =$

If a student studied for 2 hours, predict his/her test score.

2) Daniel is processing a large document on a computer. This scatter plot shows how many pages he produced each hour.

Using this information, what is the best prediction of the number of pages Daniel can produce in 10 hours? 1] 30 2] 45

3] 15 4] 40



3) The table below shows the number of prom tickets sold over a ten-day period.

Prom Ticket Sales

Day (x)	1	2	5	7	10
Number of Prom Tickets Sold (y)	30	35	55	60	70

Plot these data points on the coordinate grid. Use a consistent and appropriate scale. **Sketch** a reasonable line of best fit. Then use your calculator to find the actual line of best fit and <u>write its equation</u>. Round to nearest hundredth.

Can you <u>predict</u> how many days it will take for **150 prom tickets to be sold?**

4) Which equation most closely represents the line of best fit for the scatter plot below?





- 5) Which relationship can best be described as causal?
 - a) height and intelligence
 - b) shoe size and running speed
 - c) number of correct answers on a test and test score
 - d) number of students in a class and number of students with brown hair

6) Write the equation of a line that is parallel to the line -2y + 8x = 6 and which goes through the point (3, 5).

7) Is the point (-1,5) in the solution set of $3y \ge -x + 9$? How do you know?