

# In-class 9/22

Name: \_\_\_\_\_

1. Which of the following has the strongest correlation (largest value of  $|r|$ )?



2. What do you estimate the correlation,  $r$ , to be for each of the above plots?
3. Draw four plot with correlations of 0.9, 0, -0.5, -1. Compare with a classmate. Why can different plots both be correct?

4. Draw a straight line through the following plot that captures the trend in the data. If you'd like, you can consider multiple options.



5. How did you choose to draw your line? Discuss with a classmate and see how they chose to draw their line.

6. After discussing with your classmate, consider a way to optimize drawing the line through the plot so that we get “the best fitting line”. On the plot from 1., draw your “best fitting line” and visually depict the method you used to draw that line. For this question, describe your method for drawing your best fitting line.