Math 1 Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**2-6 Correlation Coefficient Notes** Date\_\_\_\_\_\_\_\_

* *I can determine the strength and direction of the linear model based on the correlation coefficient.*
* When computing Linear Regression on the calculator, the correlation coefficient is the

\_\_\_\_\_-value that is given.

* It is always a number between \_\_\_\_\_ and \_\_\_\_\_.
* It indicates the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between the variables.
* If *r* is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the slope of the line is positive and the correlation is positive.
* If *r* is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, the slope of the line is negative and the correlation is negative.
* If *r* is closer to 1 or -1, the association is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* If *r* is closer to 0, the association is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

After taking notes above, describe what the following correlation coefficients would mean. Be sure to describe their direction and strength!

1. r = 0.99928 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. r = -0.97546 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. r = 0.67823 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. r = -0.21236 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sketch an example of what the scatterplot would look like for the *r*-values above.

1. B.

 C. D.