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## Video 12

1. If it were true that two identical twins always had the same height, what would the scatterplot of the heights of several pairs of identical twins look like? What would be the correlation r between the heights?

If this were true, the scatterplot of the heights of identical twins would look like a straight line. The correlation r between the heights would be a perfect score of 1.0.

2. What are all the possible values of the correlation coefficient r?

The possible values of the correlation coefficient r include all values between -1.0 and 1.0.

3. If heredity plays a strong role in determining personality, will the correlation between twins raised together be about the same as, or much larger than, the correlation between twins raised apart?

The correlation between twins raised together will be much lager than the correlation between twins raised apart.

4. Is it easy to guess how large the correlation is by looking at a scatterplot? Explain.

I do not believe it is easy to tell the size of the correlation coefficient simply by looking at a scatterplot. Guessing a value between -1.0 and 1.0 would leave plenty of room for mistakes unless the scatterplot demonstrated a perfect positive or negative correlation. It would be easier to compare scatterplots to determine which one had the larger coefficient, but this still would not yield a value for r.