

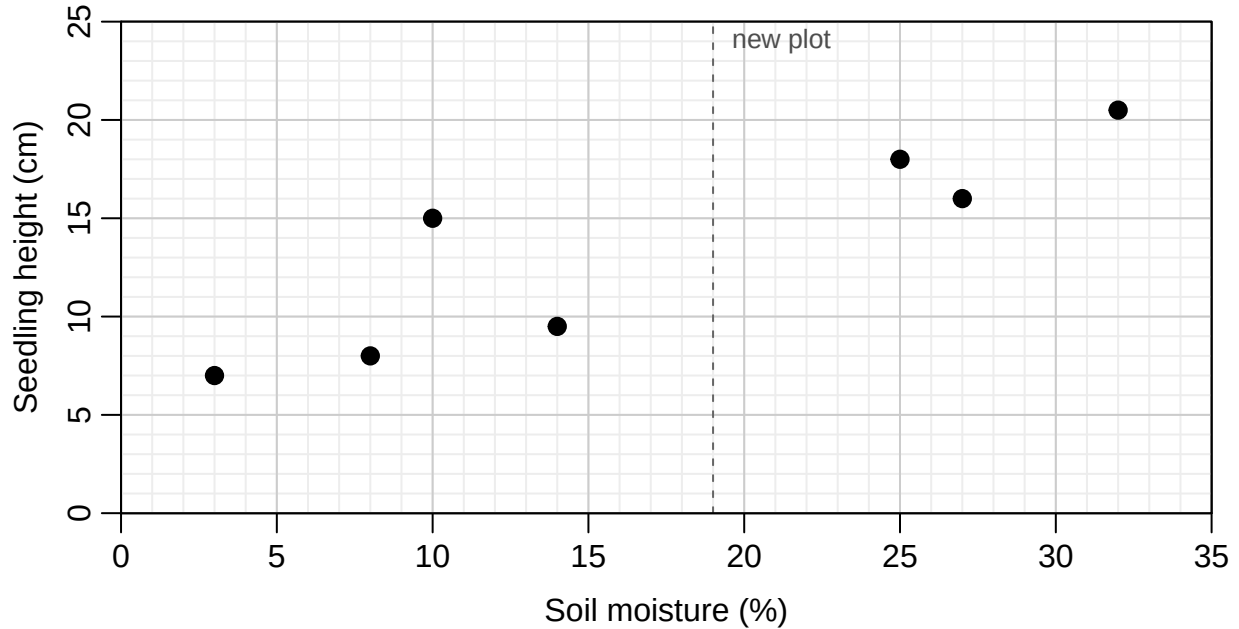
NRES 746, Week 10, Lecture 1: Connect the Dots

Name: _____

Instructions: Work alone on Part 1 (about 3 minutes), then compare with a neighbor for Part 2. Keep laptops closed.

The data

Seedling height after one growing season in seven restoration plots that differ in soil moisture.



Part 1: Two models (individual)

1a. On the figure, draw (i) a straight line that fits the seven points well, and (ii) a smooth curve that passes through every point.

1b. Which of your two models has the smaller sum of squared residuals for these seven plots?

1c. A new plot has 19% soil moisture (dashed line). Read off each model's predicted height. Straight line: _____ cm. Curve: _____ cm. Which prediction would you bet on, and why?

Part 2: Compare (with a neighbor)

2a. Lay your figures side by side. Which agree more closely between the two of you, your straight lines or your curves? What does that tell you about judging a model only by how well it fits the data used to fit it?
