

Stats Lesson 72 - Inference for Linear Regression

Activity: Helicopters!

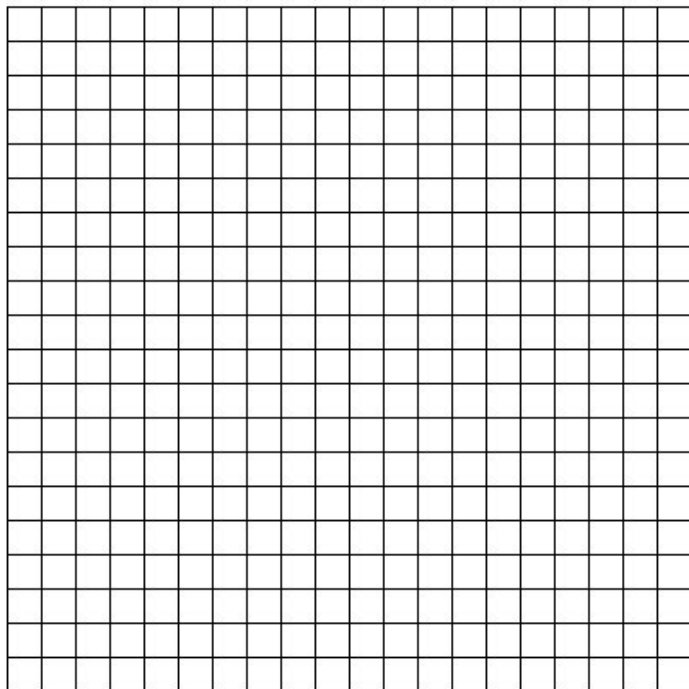
Make 25 Helicopters.

Select 5 drop heights (recommended: drop from over 5 ft).

Drop 5 from each height and record the time it takes to hit the ground.

	Hght 1:	Hght 2:	Hght 3:	Hght 4:	Hght 5:
Trial 1					
Trial 2					
Trial 3					
Trial 4					
Trial 5					

Make a scatterplot for the data:



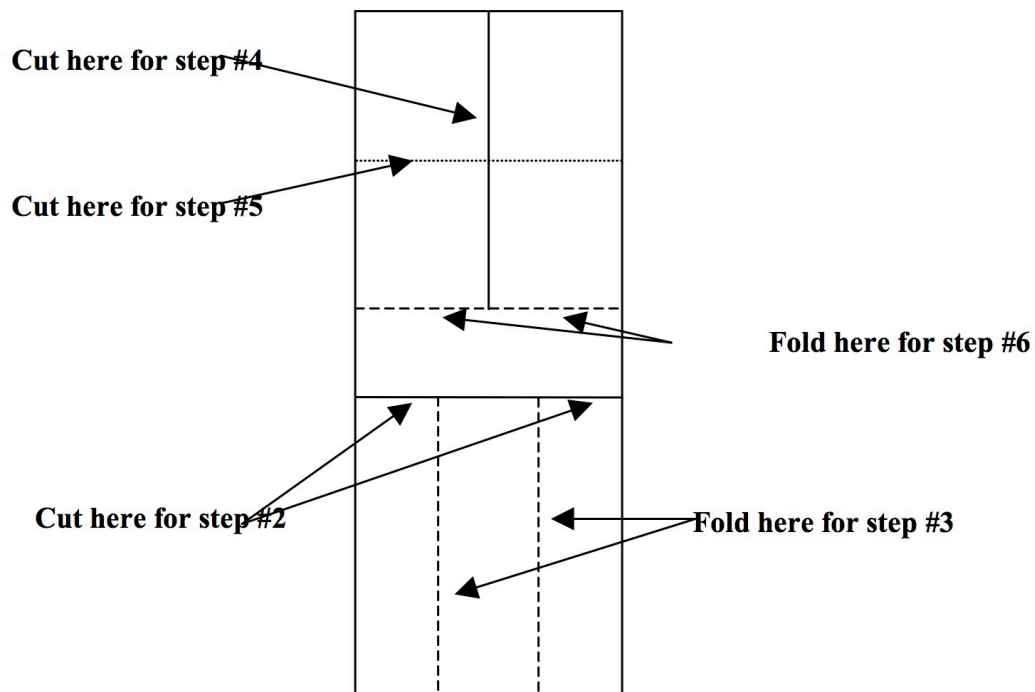
Find the Least Squares Regression Equation:

Find a 95% Confidence Interval for the Slope:

Do we have evidence of an association? Is it significant?

The following instructions use the George Box helicopter template on the previous page

1. Cut out the rectangular shape of the helicopter on the solid lines.
2. Cut one-third of the way in from each side of the helicopter to the vertical dashed lines on the solid line.
3. Fold both sides toward the center creating the base. The base can be stapled at the top and bottom. Try to be consistent about where the stapes are placed. Use a paper clip to add some weight to the body
4. For long-rotor helicopters, cut down from the top along the solid center line to the horizontal dashed line.
5. For short-rotor helicopters, proceed as in step 4, but cut the rotors off along the horizontal line marked.
6. Fold the rotors in opposite directions.



PAPER HELICOTPER DESIGN
Original Design by George Box

Appendix B

