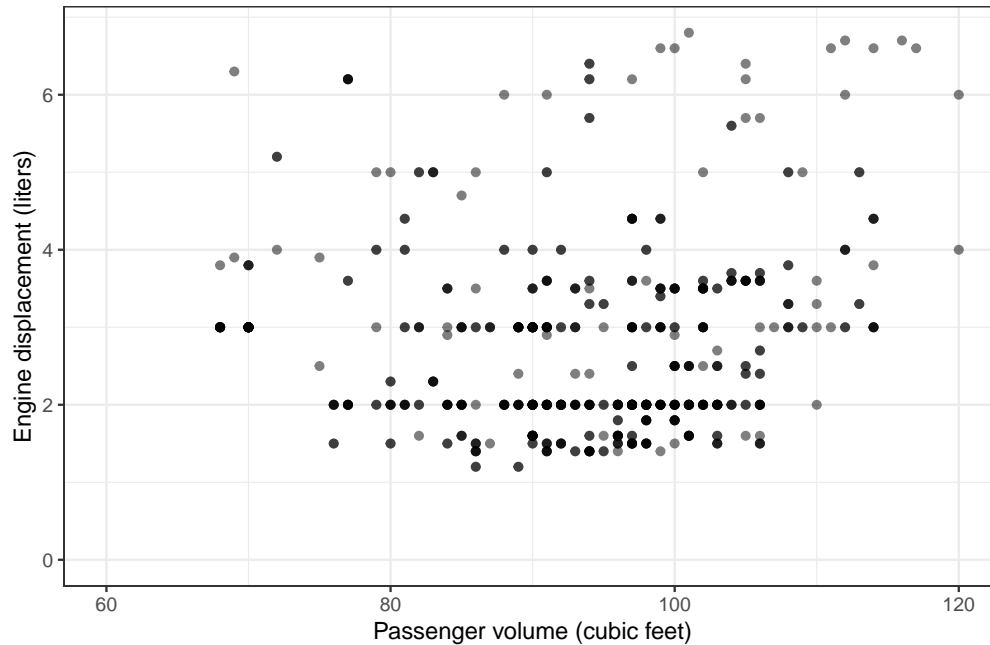


(ref:beech-run-mug) Exercise in file beech-run-mug

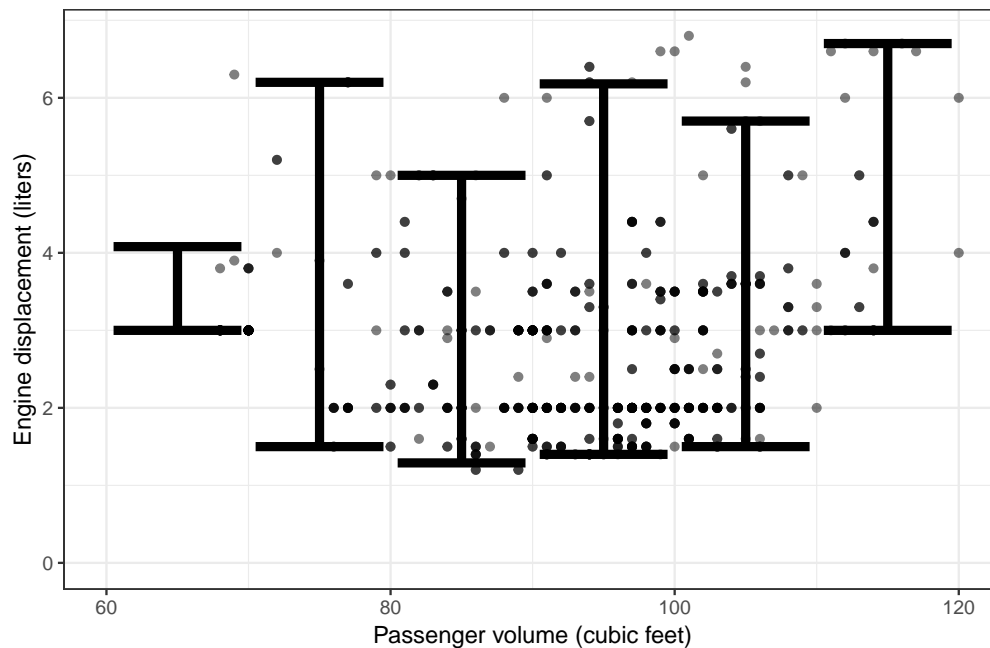
TITLE GOES HERE: @ref(fish-dive-plant) involved a comparison between hybrid and non-hybrid cars.

2019 model-year vehicles



1. Divide the horizontal axis into, strata: <70 , 70 to 80, 80 to 90, and so on.
 - a. What is a prediction interval on displacement for the 70 to 80 category?
 - b. What is a prediction interval on displacement for the 100 to 110 category?

2019 model-year vehicles

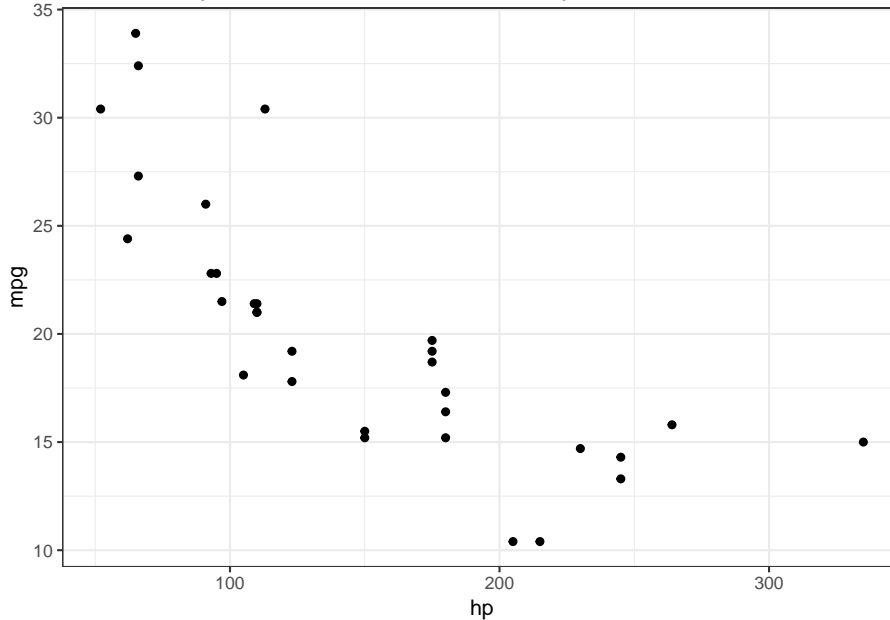


2. Comparing the 70 to 80 and the 100 to 110 cubic feet strata:
 - a. how does the engine displacement vary? -A- The prediction intervals are practically identical.
 - b. Is there a strong relationship between passenger volume and engine displacement? -A- Since the

prediction intervals don't vary, passenger volume doesn't seem to be related to displacement.

OK. This is the answer text.

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3. Consider the vehicles at the extremes of passenger volume, either very small (< 70) or very large (> 110).
 - a. Are these extreme vehicles systematically different in displacement than the large majority of vehicles with passenger volumes between 70 and 110 cubic feet? -A- Yes. Both very small and very large passenger-volume vehicles tend to have higher displacements than the vehicles in the middle.
 - b. Are the very large and very small vehicles similar or different from each other in terms of displacement? Give a common-sense explanation for the pattern. -A- Both the very small and the very large passenger-volume vehicles are built for special purposes. The very small vehicles are sports cars, which demand a high engine power and therefore high displacement. The very large vehicles are meant to carry large cargos or tow large loads. This also demands relatively high engine power.