

## ISTA 116: WEB QUIZ 4 (7 PTS)

Each of 71 newly hatched chicks was randomly assigned to one of six different feed types: casein, horsebean, linseed, meatmeal, soybean, or sunflower feed. After six weeks, their weight in grams was measured. The conditional distributions of weight, conditioned on feed type, are shown in Figure 1.

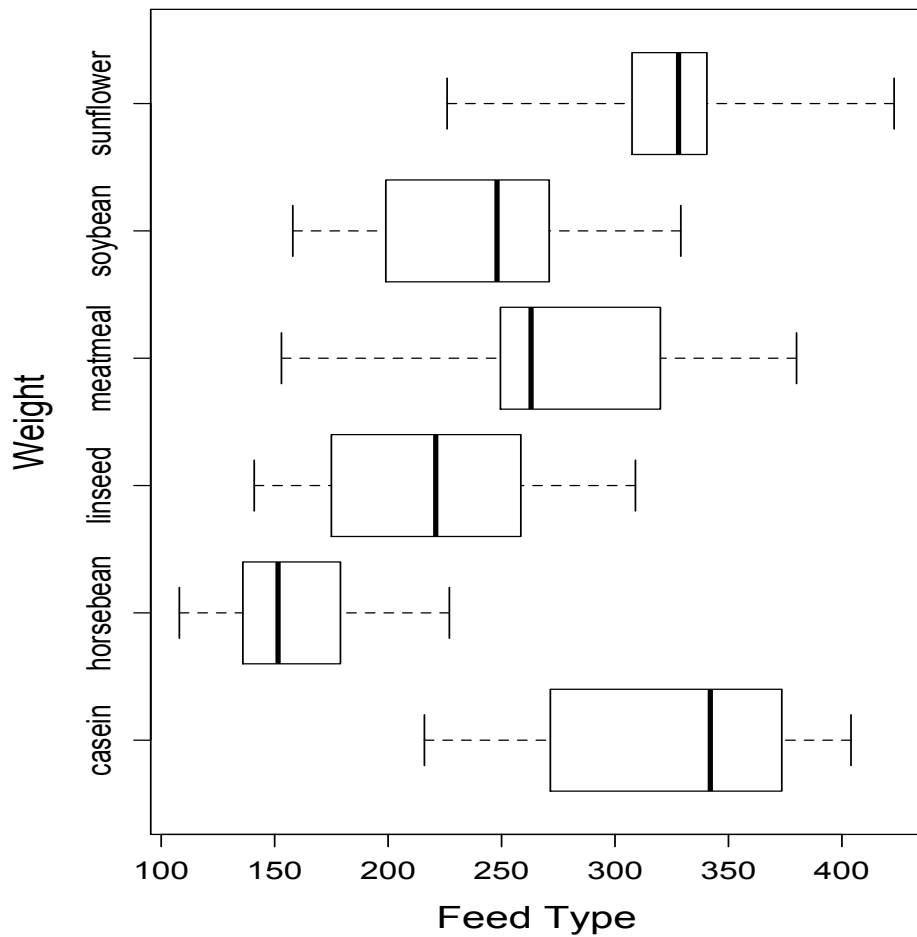


FIGURE 1. Chick Weights by Feed Type

Answer the following questions about this data.

- (1) Which feed produced chicks with the highest *mean* weight?  
Type the name of the feed as it appears on the plot, or type “NEI” if there is not enough information in the plot.
- (2) Which feed produced chicks with the highest *median* weight?  
Type the name of the feed as it appears on the plot, or type “NEI” if there is not enough information in the plot.
- (3) Which feed did the single heaviest chick eat? Type the name of the feed as it appears on the plot, or type “NEI” if there is not enough information in the plot.
- (4) Which feed group has the distribution with the largest range?  
Type the name of the feed as it appears on the plot, or type “NEI” if there is not enough information in the plot.
- (5) Which feed group has the weight distribution with the largest *H*-spread? Type the name of the feed as it appears on the plot, or type “NEI” if there is not enough information in the plot.
- (6) Describe the shape of the distribution of weights for the chicks who ate horsebean feed. Check all characteristics that can be seen from the box plot.
  - (a): Symmetric
  - (b): Left-skewed
  - (c): Right-skewed
  - (d): Bimodal
- (7) Describe the shape of the distribution of weights for the chicks who ate casein feed. Check all characteristics that can be seen from the box plot.
  - (a): Symmetric
  - (b): Left-skewed
  - (c): Right-skewed
  - (d): Bimodal