

Fox Module 17 Unusual and influential data

- Outliers, leverage, and influence
- Assessing leverage: hat-values

Read Section 11.1, “Outliers, leverage, and influence,” on pages 241-244.

Figure 11.1 on page 242 shows the concepts of leverage and influence. The final exam may ask if a given point is an outlier, has high leverage, and has high influence.

- Figure 11.2 on page 243 shows that the direction of causation affects whether a point has high leverage.
- Even if a point has low leverage, an outlier affects the R^2 and the standard error S_E .

Read Section 11.2, “Assessing leverage: hat-values,” on pages 244-246. The final exam gives a small sample of 3 to 5 points and asks to compute the hat values. Know also the bounds on hat values and the average hat value on the bottom of page 244.

The final exam asks to compute hat values. The formula is easy; don't forget it.