Chapter 3 FRAPPY!
Student Samples Commentary

Sample #1
In part (a), the response addressed the characteristics of direction (positive), form (linear), and strength (pretty strong) in context by using the variable names "sugar" and "freshness." Part (a) was scored essentially correct (E). In part (b), the response correctly interpreted the slope by addressing the predicted change in freshness for each 1-unit increase in sugar. Part (b) was scored essentially correct (E). In part (c), the residual was calculated correctly with adequate work, but the interpretation was not in context and did not specify a direction (only stating a distance "from" the regression line). Part (c) was scored partially correct (P). In part (d), the response correctly stated that the value of r^2 would be lower, but only provides a weak justification based on the increased variability in the experiment and not increased variability in the freshness time. Part (d) was scored partially correct (P). With two parts essentially correct and two parts partially correct, the entire answer was judged as substantial and earned a score of 3.

Sample #2
In part (a), the response addressed the direction of the association (as one variable gets bigger, the other variable gets bigger) in context (using "sugar" and "fresher"). However, because the response only included two of the four components, part (a) was scored partially correct (P).
In part (b), the response used the correct value for the slope, but doesn't interpret the slope in context or address the *predicted* change in *y*. Because there were two errors in the interpretation, part (b) was scored incorrect (I). In part (c), the actual and predicted values were correctly identified, but the order of subtraction was reversed in the calculation of the residual. In the interpretation, the response correctly describes the relationship between the actual and predicted values, including direction ("less than expected"). Because only the interpretation was correct, part (c) was scored partially correct (P). In part (d), the response did not state that r^2 would be lower and the justification is not based on variability. Part (d) was scored incorrect (I). With two parts partially correct, the entire answer was judged as minimal and earned a score of 1.