Chapter 12 FRAPPY!
Student Sample Commentary

Sample #1

In part (a), the response correctly stated both hypotheses, with at least one in context. Part (a) was scored essentially correct (E). In part (b), the response provided correct descriptions of the two types of errors in context. However, the labels for the errors were reversed. Part (b) was scored partially correct (P). In part (c), the response correctly listed the expected counts and commented that they are all less than 5. Part (c) was scored essentially correct (E). In part (d), the response referred to the value of 6.12 as plausible ("could happen by chance alone") but does not provide numerical evidence to support this claim. However, because the conclusion was otherwise correct and in context, part (d) was scored partially correct (P). With two parts essentially correct and two parts partially correct, the entire response was judged as substantial and earned a score of 3.

Sample #2

In part (a), the response incorrectly refers to sample data ("the distributions of responses *were* the same") instead of stating the hypotheses in terms of the true distributions of responses. Part (a) was scored incorrect (I). In part (b), the response provided correct descriptions of the two types of errors. However, these descriptions were not in context. Part (b) was scored partially correct (P). In part (c), the response correctly listed the expected counts and commented that they are all too small, but does not compare the expected counts to a boundary (e.g., 5). Part (c) was scored partially correct (P). In part (d), the response used the chi-square distribution with df = 4 to estimate the *P*-value, rather than using the results of the simulation. Part (d) was scored incorrect (I). With two parts partially correct, the entire response was judged as minimal and earned a score of 1.