

1. The hair colors that follow were self-reported by a sample of white Americans born between 1957 and 1965.

	Blond	Brown	Black	Red
Males	50	221	23	10
Females	63	233	12	12

Use Minitab to perform a test of hypothesis to see if there is an association between hair color and gender. Write down all five steps of the test, and include a post-hoc analysis, if appropriate. Be specific in your conclusion! Is this result surprising? Explain.

2. Do Problem 13.35 (p. 794), by hand (no need to show any post-hoc analysis). Use the following table as a guide.

	Angular/High	Rounded/Low	Total
Sweet	35	7	
Sour	5	33	
Total			

3. Read the following problem (from our previous stats book) and use Minitab to perform a test of hypothesis comparing the seven proportions given. You'll have to fill in the table of counts first, below (rounded to the nearest whole number). Interpret the results in a paragraph addressed to a general audience. Be sure to include some post-hoc analysis in your answer. (**Hint:** You should reference the overall probability of finding manganese nodules in your analysis.)

14.32 Deep-Sea Research W.W. Menard has conducted research involving manganese nodules, a mineral-rich concoction found abundantly on the deep-sea floor.¹¹ In one portion of his report, Menard provides data relating the magnetic age of the earth's crust to the "probability of finding manganese nodules." The table gives the number of samples of the earth's core and the percentage of those that contain manganese nodules for each of a set of magnetic-crust ages. Do the data provide sufficient evidence to indicate that the probability of finding manganese nodules in the deep-sea earth's crust is dependent on the magnetic-age classification?

Age	Number of Samples	Percentage with Nodules
Miocene—recent	389	5.9
Oligocene	140	17.9
Eocene	214	16.4
Paleocene	84	21.4
Late Cretaceous	247	21.1
Early and Middle Cretaceous	1120	14.2
Jurassic	99	11.0

	Miocene	Oligocene	Eocene	Paleocene	Late Cretaceous	Early and Middle Cretaceous	Jurassic	Total
Has nodules								
Doesn't have nodules								
Total	389	140	214	84	247	1120	99	