

**Alternative Energy** You work for a research company. You want to determine whether U.S. adults support more funding for alternative energy. In Exercises 13–15, use the *Sample Size Calculator at Math.andYou.com*. (See Example 5.)

13. Choose a 95% confidence level and a 3% margin of error. How many people should you survey to obtain reliable results?
14. Repeat Exercise 13 using a 99% confidence level. Compare the sample sizes. What happens when the confidence level increases? Explain.
15. Repeat Exercise 13 choosing a 5% margin of error. Compare the sample sizes. What happens when the margin of error increases? Explain.



**Biased Questions** In Exercises 16–18, determine which question might produce biased results. Explain. (See Example 6.)

16.

a. Do you think solar panels should be installed at city hall using taxpayer money?

Yes       No

b. Do you agree with most of your neighbors that it is a waste of taxpayer money to install solar panels at city hall?

Agree       Disagree

17.

a. Do you agree that the unfair policy of requiring students to do a time-consuming community service project should be changed?

Agree       Disagree

b. Do you think the policy of requiring students to do a community service project should be kept?

Yes       No

18.

a. Do you think people should recycle phone books?

Yes       No

b. Do you think people should recycle old, out-of-date phone books?

Yes       No