6.1 Exercises

Write each percent as a decimal. See Examples 2 and 3.

1. 12%   **2.** 57%

5. 25%   **6.** 35%

9. 5.5%   **10.** 6.7%

13. 0.5%   **14.** 0.25%

Write each decimal as a percent. See Example 4.

17. 0.6   **18.** 0.9

21. 0.01   **22.** 0.07

25. 0.375   **26.** 0.625

29. 3.7   **30.** 2.2

33. 4.162   **34.** 8.715

37. Fractions, decimals, and percents are all used to describe a part of something. The use of percents is much more common than fractions and decimals. Why do you suppose this is true?   3!

Write each percent as a decimal and each decimal as a percent

39. In Lincoln, 45% of the refuse is recycled.   40

41. At Bett's Boutique, 18% of the items sold are returned.   42

43. The property tax rate in Alpine County is 0.035.   44

45. The number of people successfully completing CPR training this session is 2 times that of the last session.   46

47. Only 0.005 of the total population has this genetic defect.   48

49. The patient's blood pressure was 153.6% of normal.   50

Fill in the blanks. Remember that 100% is all of something, 20(and 300% is three times as many. See Example 5.

51. There are 20 children in the preschool class. 100% of the children are served breakfast and lunch. How many children are served both meals?   52

65. (a) Describe a shortcut method of finding 200% of a number.

(b) Show an example using your shortcut.

67. (a) Describe a shortcut method of finding 10% of a number.

(b) Show an example using your shortcut.

58. Elizabeth gets 3200 "off-peak" minutes of calling time on her cell phone plan. Last month she used 50% of her allowed minutes. The number of minutes used was _____.

60. Sarah expects that 10% of the 240 dozen plants in her greenhouse will not be sold. The expected number of unsold plants is _____.

62. Of the 4800 accidents, only 1% was caused by mechanical failure. How many accidents were caused by mechanical failure? _____.

Homeowners were asked what home improvement projects they would take on themselves. The bar graph shows the ranking of the top projects and the percent of homeowners selecting each project. Use this graph to answer Exercises 69–72. Write each answer as a percent and as a decimal.

69. What portion of the homeowners selected painting and wallpapering as a project to do themselves?

70. What portion of the homeowners selected carpentry projects as a project to do themselves?
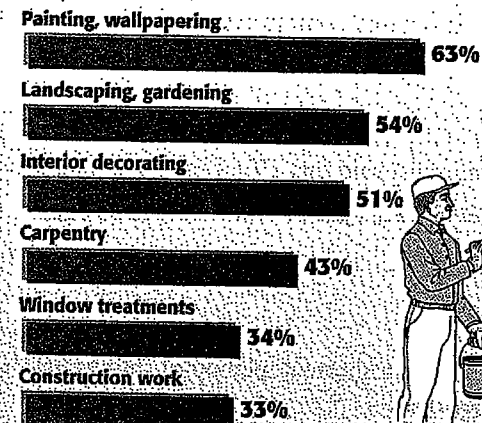
71. (a) What was the second-most-selected project?

(b) Write the portion of the homeowners who selected that project.

72. (a) What was the third-most-selected project?

(b) Write the portion of the homeowners who selected that project.

CAN YOU FIX IT?
Projects homeowners take on themselves, according to a recent survey:

Painting, wallpapering **63%**
Landscaping, gardening **54%**
Interior decorating **51%**
Carpentry **43%**
Window treatments **34%**
Construction work **33%**

Note: Multiple responses allowed.
Source: American Express Home Improvement Index telephone survey.