


## 4.2 Exercises

FOR  
EXTRA  
HELP

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Round each number to the place indicated. See Examples 1 and 2.

1. 16.8974 to the nearest tenth
2. 193.845 to the nearest hundredth
3. 0.95647 to the nearest thousandth
4. 96.81584 to the nearest ten-thousandth
5. 0.799 to the nearest hundredth
6. 0.952 to the nearest tenth
7. 3.66062 to the nearest thousandth
8. 1.5074 to the nearest hundredth
9. 793.988 to the nearest tenth
10. 476.1196 to the nearest thousandth
11. 0.09804 to the nearest ten-thousandth
12. 176.004 to the nearest tenth
13. 48.512 to the nearest one
14. 3.385 to the nearest one
15. 9.0906 to the nearest hundredth
16. 30.1290 to the nearest thousandth
17. 82.000151 to the nearest ten-thousandth
18. 0.400594 to the nearest ten-thousandth

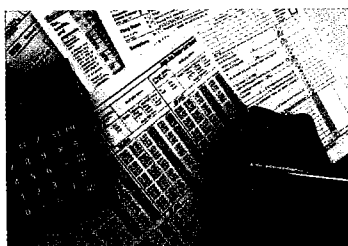
Nardos is grocery shopping. The store will round the amount she pays for each item to the nearest cent. Write the rounded amounts. See Example 3.

19. Soup is three cans for \$2.45, so one can is \$0.81666. Nardos pays \_\_\_\_\_.
20. Orange juice is two cartons for \$3.89, so one carton is \$1.945. Nardos pays \_\_\_\_\_.
21. Facial tissue is four boxes for \$4.89, so one box is \$1.2225. Nardos pays \_\_\_\_\_.
22. Muffin mix is three packages for \$1.75, so one package is \$0.58333. Nardos pays \_\_\_\_\_.
23. Candy bars are six for \$2.99, so one bar is \$0.4983. Nardos pays \_\_\_\_\_.
24. Spaghetti is four boxes for \$4.39, so one box is \$1.0975. Nardos pays \_\_\_\_\_.



As she gets ready to do her income tax return, Ms. Chen rounds each amount to the nearest dollar. Write the rounded amounts. See Example 4.

25. Income from job, \$48,649.60
26. Income from interest on bank account, \$69.58
27. Union dues, \$310.08
28. Federal withholding, \$6064.49
29. Donations to charity, \$848.91
30. Medical expenses, \$609.38



Round each money amount as indicated.

31. \$499.98 to the nearest dollar.      32. \$9899.59 to the nearest dollar      33. \$0.996 to the nearest cent  
 34. \$0.09929 to the nearest cent.      35. \$999.73 to the nearest dollar.      36. \$9999.80 to the nearest dollar.

The table lists speed records for various types of transportation. Use the table to answer Exercises 37–40.

Record	Speed (miles per hour)
Land speed record (specially built car)	763.04
Motorcycle speed record (specially adapted motorcycle)	322.15
Fastest roller coaster	106.9
Fastest military jet	2193.167
Boeing 737-300 airplane (regular passenger service)	495
Indianapolis 500 auto race (fastest average winning speed)	185.981
Daytona 500 auto race (fastest average winning speed)	177.602

Source: *The Top 10 of Everything 2003* and *The World Almanac 2003*.

37. Round these speed records to the nearest whole number.  
 (a) Motorcycle  
 (b) Roller coaster
38. Round these speed records to the nearest hundredth.  
 (a) Daytona 500 average winning speed  
 (b) Indianapolis 500 average winning speed
39. Round these speed records to the nearest tenth.  
 (a) Indianapolis 500 average winning speed  
 (b) Land speed record
40. Round these speed records to the nearest hundred.  
 (a) military jet  
 (b) Boeing 737-300 airplane



### RELATING CONCEPTS (EXERCISES 41–44) For Individual or Group Work

Use your knowledge about rounding money amounts to work Exercises 41–44 in order.

41. Explain what happens when you round \$0.499 to the nearest dollar. Why does this happen?
42. Look again at Exercise 41. How else could you round \$0.499 that would be more helpful? What kind of guideline does this suggest about rounding to the nearest dollar?
43. Explain what happens when you round \$0.0015 to the nearest cent. Why does this happen?
44. Suppose you want to know which of these amounts is less, so you round them both to the nearest cent.  
 \$0.5968      \$0.6014  
 Explain what happens. Describe what you could do instead of rounding to the nearest cent.