Review for Chapter Five Exam

Write the decimal in words.

1. 4.00927

2. 4.79

Write the decimal in numbers

3. One hundred and two-tenths

4. In his qualifying time trial, a race car driver averages a speed of one hundred seventy-three and nineteen thousandths mph.

Write the decimal as a fraction or mixed number in lowest terms.

5. 697.8102   **6**. 0.5

Insert <, >, or = between each pair of numbers to form a true statement.

7. 654.901 ___ 654.910   **8**. 223.3901 ___ 223.3109   **9**. 0.3 ___ 0.0631

10. 0.933 ___ 0.934

11. $\dfrac{65}{12}$ ___ 5.417

Round the decimal to the given place value.

12. 8.74803 (nearest thousandth)

13. 76.2 (nearest ten)

14. 29.1064 (nearest hundredth)

Round the money amount to the specified place.

15. $0.1043 (nearest cent)   **16**. $99.73 (nearest dollar)

Perform the indicated operation.

17.   264.362
         17.901
       + 4.626

18.   5.91
          2.23
       + 14.76

19.   0.405
        × 0.3

20. 53.135 ÷ (−1,000)   **21**. 8.531 − 6.479   **22**. −0.2 ÷ (−0.2)

23. $-7.8 - 2.7$ **24**. $565.35 \div (-100)$ **25**. $(-5.32)(-3.86)$

26. 5.9×0.1 **27**. $5.1 \times 1,000$ **28**. $-1 \div 0.02$

29. $(242.54)(10)$ **30**. $8.76 \div (-12)$ **31**. $-0.86 \div 10$

Evaluate the given expression using the given values of the variables.

32. $y - x + z$; $x = 7.6$, $y = 9$, $z = 0.86$ **33**. $y \div 9$; $y = 0.882$

34. $x + z$; $x = 5.3$, $z = 0.73$ **35**. $-2.7y$; $y = 4$

36. $-5y$; $y = -2.6$ **37**. $8.8 \div x$; $x = 14.08$

Determine whether the given value is a solution in the given equation.

38. Is 15.6 a solution for the equation $28.3 - z = 12.7$?

39. Is 21 a solution for the equation $32.4 - y = 11.4$?

40. Is -6 a solution for $4.5x = -27$?

41. Is 0.06 a solution for $6.6x = 3.96$?

42. Is 5.589 a solution for $\dfrac{x}{9} = 6.21$?

43. Is 33.44 a solution for $\dfrac{x}{3.8} = 8.8$?

Simplify by combining like terms.

**44**. $-9.5 + 9.7x - 6.5 - 3.9x$ **45**. $9.0 - 14.8x - 15.5x + 12.3$

Solve the equation.

**46.** $1.2x + 3.2 = 0.5x + 2.15$ **47.** $4x - 5.8 = 2x + 10$ **48.** $-12.2 = -6.1c$

Solve.

49. Last year, Susan's average credit card bill was $124.43. Last month, her credit card bill was $166.79. How much above last year's average was last month's bill?

50. A printing company charges $2.3715 for each party invitation it prints. What would be the cost (before tax) for printing 400 party invitations? (Round the answer to the nearest cent.)

51. A meter is a unit of measure in the metric system that is approximately equal to 39.37 inches. Gina is 2.05 meters tall. What is her approximate height in inches? (Round to the nearest hundredth.)

52. A farmer sells 10,000 bushels of cotton for $2.90 a bushel. How much did the farmer receive?

53. Madison, Amanda, and Steven enter a 49.1-mile bicycle team relay race. They complete the course in 2.22 hours. What was their average speed on the course? (Round to the nearest tenth.)

54. There are approximately 2.54 centimeters in 1 inch. How many inches are there in 130 centimeters? (Round to the nearest hundredth.)

55. In a practice run, a race car driver's speed is clocked at 138.555 mph at the end of his first lap, and at 166.441 mph at the end of the next lap. How much faster was he driving at the end of the second lap?

56. Find the height of the cliff. Round to the nearest hundredth meter.

43 m

?

21 m
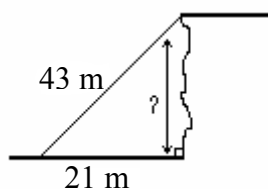
57. A rectangular plot of land is 74 yards by 82 yards. Find the length of the diagonal to the nearest tenth yard.
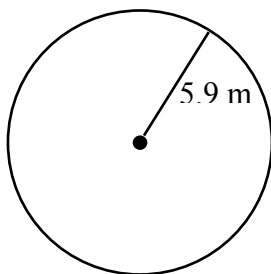
74 yards

?

82 yards
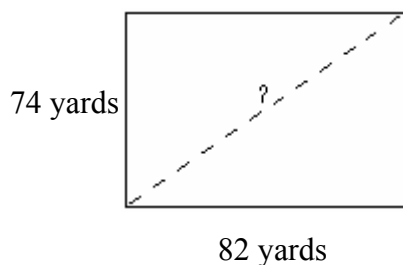
58. One end guy wire is attached to the top of a 27-foot pole and the other end is anchored into the ground 22 feet from the base of the pole. Find the length of the guy wire. Round to the nearest tenth foot.
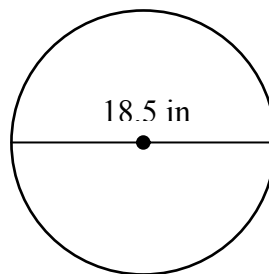
27 feet

?

22 feet
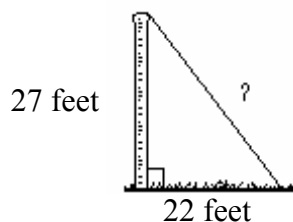
59. Give the decimal number for π rounded to the nearest hundredth.

Find the exact circumference of the circle.

60.

5.9 m

61.

18.5 in

Approximate the circumference of the circle using 3.14 for π.

62. A windmill is constructed having blades 10.6 feet long. The length of the blades will be the radius of the circle which the windmill will sweep. What is the circumference of the circle which the windmill will sweep?

Divide and round the quotient as indicated.

63. Divide 6.51 by 0.059 and round the quotient to the nearest hundredth.

64. Divide 132.25 by 5.1 and round the quotient to the nearest hundredth.

65. Divide 1068.18 by 0.026 and round the quotient to the nearest thousandth.

Write the fraction as a decimal. Round to the nearest thousandth, if necessary.

66. $\dfrac{13}{38}$

67. An organization surveys its members and finds that $\dfrac{59}{82}$ of them play a musical instrument. Write this fraction as a decimal. Round to the nearest thousandth, if necessary.

Arrange in order from smallest to largest.
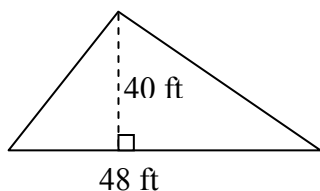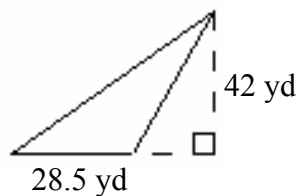
68. 0.05, 0.04, 0.045, 0.054

69. $\dfrac{3}{4}, \dfrac{5}{6}, \dfrac{4}{5}, 0.95$

Find the area of the figure. Round to the nearest thousandth, if necessary.

70.

40 ft

48 ft

71.

42 yd

28.5 yd

Find the square root.

72. $\sqrt{36}$ **73.** $\sqrt{\dfrac{1}{100}}$ **74.** $\sqrt{\dfrac{4}{225}}$

Approximate the square root. Round to the nearest thousandth.

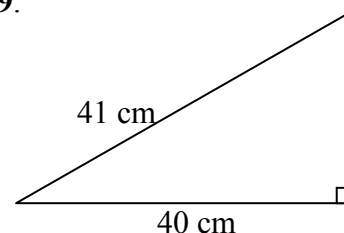**75.** $\sqrt{134}$ **76.** $\sqrt{680}$

Using the given lengths of two sides of a right triangle, find the length of the side not given. Round to the nearest thousandth.

77. leg = 3 m,   **78.** leg = 9 in,   **79.**
      leg = 1 m   hypotenuse = 15 in

41 cm

40 cm

ANSWERS

1. four and nine hundred twenty-seven hundred-thousandths   **2**. four and seventy-nine hundredths

3. 100.2   **4**. 173.019 mph   **5**. $697\dfrac{4051}{5000}$ **6**. $\dfrac{1}{2}$ **7**. <   **8**. >   **9**. >   **10**. <   **11**. <   **12**. 8.748

13. 80   **14**. 29.11   **15**. $0.10   **16**. $100   **17**. 286.889   **18**. 22.90   **19**. 0.1215   **20**. –0.053135

21. 2.052   **22**. 1   **23**. –10.5   **24**. –5.6535   **25**. 20.5352   **26**. 0.59   **27**. 5,100   **28**. –50

29. 2425.4   **30**. –0.73   **31**. –0.086   **32**. 2.26   **33**. 0.098   **34**. 6.03   **35**. –10.8   **36**. 13   **37**. 0.625

38. Yes   **39**. Yes   **40**. Yes   **41**. No   **42**. No   **43**. Yes   **44**. $5.8x - 16$ **45**. $-30.3x + 21.3$

46. –1.5   **47**. 7.9   **48**. 2   **49**. $42.36   **50**. $948.60   **51**. 80.71 in   **52**. $29,000.00   **53**. 22.1 mph

54. 51.18 in   **55**. 27.886 mph   **56**. 37.52 m   **57**. 110.5 yards   **58**. 34.8 feet   **59**. 3.14   **60**. 11.8π m

61. 18.5π in   **62**. 66.568 feet   **63**. 110.34   **64**. 25.93   **65**. 41,083.846   **66**. 0.342   **67**. 0.72

68. 0.04, 0.045, 0.05, 0.054   **69**. $\dfrac{3}{4}, \dfrac{4}{5}, \dfrac{5}{6}, 0.95$ **70**. 960 ft^2 **71**. 598.5 yd^2 **72**. 6   **73**. $\dfrac{1}{10}$

74. $\dfrac{2}{15}$ **75**. 11.576   **76**. 26.077   **77**. 3.162 m   **78**. 12 in   **79**. 9 cm