

Algebra Summer Assignment

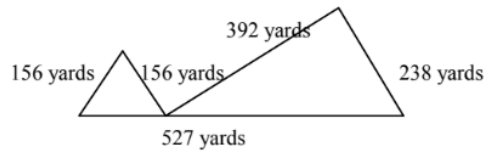
Instructions: Please print this summer packet and complete it neatly using a pencil. You must show ALL WORK, either on the packet, or on separate paper attached to the packet. Please bring your completed summer assignment the first day of school. This assignment will be collected on the very first day and serve as one of the first grades of the marking period. Points will be taken off for lateness, or for students who do not show their work!

Name _____ Date _____

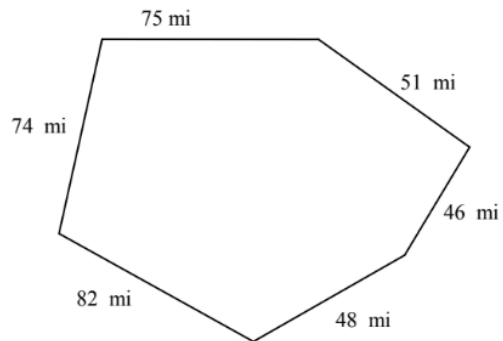
Algebra Summer Assignment

Find the perimeter.

1.

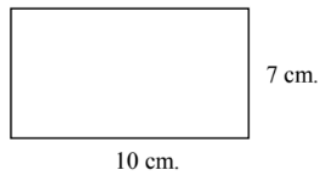


2.

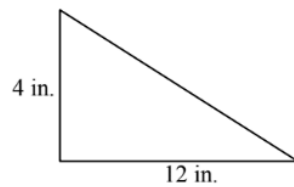


Find the area.

3. $A = LW$



4. $A = \frac{1}{2}bh$



Find the place value of the 2 in the following numbers.

5. 269,571

6. 793,801,524

Round as indicated.

7. 636,331 to the nearest ten.

8. 504 to the nearest hundred.

Write a multiplication sentence that corresponds to the situation.

9. How many months are there in 45 years?

10. Julie can bike 56 miles a day. If she can vacation for 22 days, what is the maximum distance she can cover?

Write division sentence that corresponds to the situation. Do not carry out the division.

11. A group of 7 people wants to buy a boat. The boat costs \$273. If they all pay the same amount, how much is each person's share?

12. The city bridge has 9 lanes, all carrying equal number of cars. If 297 cars drive across the bridge, how many cars cross in each lane?

Write the following in exponential form.

13. $2 \cdot 2 \cdot 2 \cdot 3 \cdot 3 \cdot 5$

14. $2 \cdot 2 \cdot 3 \cdot 5 \cdot 5 \cdot 7$

Find the prime factorization of the number.

15. 70

16. 126

Simplify.

17. $(-30) \div (5) + 3(4) - 8(-2)$

18. $7(5) - 2(4) + (-42) \div (-7)$

19. $|98|$

20. $|-78|$

21. $-91 + 97$

22. $-2 + (-6)$

23. $24 - (-9)$

24. $-11 - (-18)$

25. $(-5)(-5)(-3)$

26. $7 \cdot (-10) \cdot (-10) \cdot 6 \cdot (-3)$

27. $-84 \div (-6)$

28. $\frac{80}{-5}$

29. $7(x-1) - 2x$

30. $8(x+2) + 9 + 3x$

31. $-|-56|$

32. $2 - |-7|$

33. $-42 \div 3 \cdot 2$

34. $7 - 2(6-1)$

35. $3 + 10 \cdot 2$

Multiply.

36. $2 \cdot \frac{1}{5}$

37. $-\frac{5}{6} \cdot 7$

38. $\frac{7}{8} \cdot \frac{7}{8} \cdot \frac{1}{2}$

39. $\frac{5}{8} \cdot \frac{5}{12} \cdot \frac{4}{25}$

Write the fraction in its lowest terms.

40. $\frac{55}{190}$

41. $\frac{23}{69}$

Solve.

42. A restaurant has a capacity of 32 patrons. If the restaurant is $\frac{7}{8}$ full, how many patrons are restaurant?

43. A recipe calls for $\frac{2}{3}$ cup of milk. How much milk should be used to make $\frac{1}{4}$ of the recipe

44. Find the quotient of 6 and -2 .

45. Subtract 12 from -36 .

46. Convert 53mm to meters.

47. How many centimeters are in 0.2km?

Divide and simplify.

48. $\frac{3}{4} \div \frac{6}{7}$

49. $\frac{4}{9} \div \frac{6}{5}$

Add and, if possible, simplify.

50. $\frac{-2}{5} + \frac{1}{15}$

51. $\frac{13}{-14} + \frac{8}{21} - \frac{5}{7}$

52. $\frac{2}{3} + \frac{5}{6} + \frac{-2}{9}$

Use < or > to write a true sentence.

53. $\frac{1}{12} \square \frac{5}{6}$

54. $-\frac{11}{8} \square -\frac{46}{40}$

55. $|-17| \square |-4|$

56. $|12| \square |-20|$

Solve.

57. $y + \frac{5}{6} = \frac{13}{14}$

58. $m - \frac{4}{5} = \frac{6}{7}$

59. $3r + 2 = 29$

60. $20 = 5x - 10$

61. $\frac{3}{4}x = 18$

62. $6 - \frac{2}{9}x = -4$

63. While walking Joe's heart beats 4790 times in 50 minutes. What is the rate in beats per minute?

64. Two packets of pudding contain 13 servings. What is the rate in servings per packet?

Round the number as requested.

65. Round to the nearest tenth: 1.23

66. Round to the nearest hundredth: 1.274

Combine like terms.

67. $-10.2b + 25.8b$

68. $8.6a + 8.3b - 1.3a - 3.5b$

Evaluate.

69. $P + Prt$, for $P = 5000$, $r = 0.06$ and $t = 5.5$

70. $2na + .5n(n-1)d$ for $n = 6$, $a = 3.5$ and $d = 9$

Write the fraction in decimal notation.

71. $\frac{11}{16}$

72. $\frac{15}{40}$

Estimate by rounding as directed.

73. $15.9745 + 74.5890$; nearest tenth

74. $32.432 - 14.18$; nearest tenth

Solve.

75. Mr. Lee wanted to keep track of how far he was driving today. He drove to Lodi which was 35.15 miles, then he drove to Merced which was 10.11 miles, then he drove home which was 18.03 miles. How far did Mr. Lee drive?

76. Mrs. Hernandez prepared her grocery list at home. Her list contained the following items with their sale prices: cheese - \$3.97; crackers - \$2.87; soda - \$3.01; hamburger - \$2.97; and gum - \$0.97. She bought all of the items at the store except the crackers. How much money did she spend?

77. The population of Nowhere, USA was estimated to be 668,100 in 2003, with an expected increase of 5.5% year. At the rate of increase given, what is the expected population in 2004? Round your answer to the nearest whole number.

78. Suppose that, in 2006, France produced 13.973 million bikes. The total world production that year totaled 120 million bikes. What percent of the world's production of bikes is contributed by France? Round your answer to the nearest tenth of a percent.

Write the decimal as a fraction in lowest terms.

79. -39.08

80. 0.0108

Simplify.

81. $8 \div 2 \cdot 2 - 3^2$

82. $-7(4^2) \div 4$

83. $\frac{6(-3) + 2(-3)}{24 - 28}$

84. $\frac{3^2 + (7 \cdot 2) - 3}{2^2 - (6)(-2) - 12}$

85. $14\frac{5}{8} + 13\frac{1}{4}$

86. $7\frac{3}{4} + 5\frac{5}{6}$

87. $34\frac{1}{3} - 12\frac{5}{8}$

88. $23\frac{5}{16} - 16\frac{3}{4}$

89. $\left(3\frac{1}{2}\right)\left(4\frac{2}{3}\right)$

90. $4\frac{7}{10} \cdot 5\frac{3}{10}$

91. $20 \div 2\frac{3}{5}$

92. $5\frac{4}{5} \div 2\frac{1}{2}$

93. $-5(x-7)+10$

94. $-4(x+2)-7$

Solve.

95. $5(x+2)=3x+18$

96. $2a+18=12(a-1)$

Find the LCD.

97. $\frac{2}{3}, \frac{4}{5}, \frac{2}{7}$

98. $\frac{1}{6}, \frac{7}{x}, \frac{7}{18}$

99. $\frac{8}{19}, \frac{-15}{76}$

100. $\frac{-17}{132}, \frac{61}{165}$

Evaluate.

101. $a+(b-a)^2$ for $a=6$ and $b=4$.

102. $(x+y)^2 - y$ for $x=2$ and $y=3$

103. $-x$ for $x=-95$

104. $-(-(-x))$ for $x=27$

105. **Find the rate, or speed, as a ratio of distance to time.**

341.25 m, 1.75 hr

106 – 113 (each line) Fill in the missing values.

Fraction notation	Decimal notation	Percent notation
		87.5%
$\frac{5}{6}$		
$\frac{1}{2}$		
	2.8	

Identify the property being illustrated.

114. $(-12)+15=15+(-12)$

115. $8 \cdot (3 \cdot 4) = (8 \cdot 3) \cdot 4$

116. $14+(x+3)=(x+3)+14$