

Sec 4.7 Applications and Problem Solving

Solve the problem.

- 1) A person burns 6.1 calories per minute while walking. How many calories will be burned if the person walks for 5 hours?

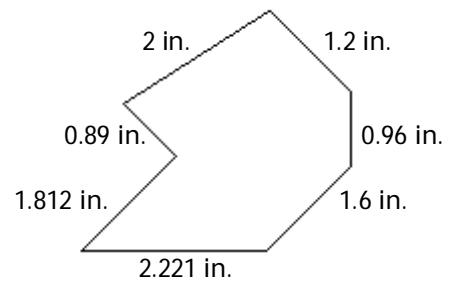
- 4) A rectangular garden measures 19.8 feet by 55.2 feet. What is its area?

- 2) Julia bought a dress originally costing \$95.86. When she brought the dress to the counter, the agent told her that it was discounted \$9.59. What is the sales price for the dress?

- 5) A rectangular garden measures 20.1 feet by 54.6 feet. What is its area?

- 3) Pete's grocery bill was \$9.51. He gave the clerk a \$20 bill. How much change should he receive?

- 6) Find the perimeter of the figure below.



7) Dave bought 15 packets of cookies for \$32.25. Each packet of cookies contains 15 cookies. Find the cost of each cookie to the nearest tenth of a cent.

10) Catherine bought 2 items at Lucky Pete's market. She bought a pound of butter for \$1.81 and a gallon of milk for \$2.64. What was the total amount that she paid for both of these items?

8) Mr. Hahn wanted to keep track of how far he was driving today. He drove to Lodi which was 49.13 miles, then he drove to Merced which was 25.14 miles, then he drove home which was 7.27 miles. How far did Mr. Hahn drive?

11) When Paula set off to drive to her friend's house, the odometer read 9321.2 miles. When she arrived at her friend's house, the odometer read 9442.4 miles. How far had she driven?

9) Dave bought 8 packets of cookies for \$16.96. Each packet of cookies contains 12 cookies. Find the cost of each cookie to the nearest tenth of a cent.

12) The water in a tank weighs 401.99 lb. One cubic foot of water weighs 62.5 lb. How many cubic feet of water are in the tank?

Solve.

13) At SuperStop, gasoline costs \$1.38 per gallon when you pay with a credit card, \$0.09 per gallon less when you pay with cash. How much do you save by filling up a 14-gallon tank if you are paying cash?

14) Jameel's cellular phone plan gives him 500 anytime minutes per month for a monthly access fee of \$45.99. Minutes in excess of 550 are charged at the rate of \$0.42 per minute. Last month, Jameel used his cellphone for 629 minutes. How much was he charged?

15) Alan's yard is rectangular and measures 19.7 meters by 8.8 meters. Maria's yard is rectangular and measures 44.5 meters by 34.5 meters. What is the total area of the two yards?

16) Sue buys a house which has a rectangular yard measuring 8.4 meters by 6.6 meters. In one corner of the yard is a rectangular shed measuring 3.5 meters by 3.6 meters. Sue intends to grow grass in the whole of the yard. What is the area of the yard excluding the shed?

17) Suppose that you own a home which is valued at \$163,000. You must move to a different city. Use the formula below to find out how much it would cost to buy a similar (replacement) home in the city that you will move to. Assume that the index of your city is 235 and that the index of the new city is 161. Round your answer to the nearest dollar.

$$\text{Cost of Your Home in New City} = (\text{Value of Your Home}) \div (\text{Index of Your City}) \times (\text{Index of New City})$$