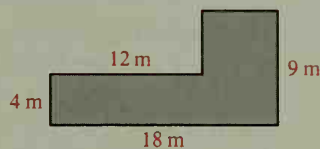
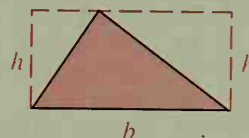


25. Find the area of a square with diagonals of length d .
26. The length of a rectangle is 12 cm more than its width. Find the area of the rectangle if its perimeter is 100 cm.
27. A path 2 m wide surrounds a rectangular garden 20 m long and 12 m wide. Find the area of the path.
28. How much will it cost to blacktop the driveway shown if blacktopping costs \$11.00 per square meter?
29. A room 28 ft long and 20 ft wide has walls 8 ft high.
 - a. What is the total wall area?
 - b. How many gallon cans of paint should be bought to paint the walls if 1 gal of paint covers 300 ft²?
30. A wooden fence 6 ft high and 220 ft long is to be painted on both sides.
 - a. What is the total area to be painted?
 - b. A gallon of a certain type of paint will cover only 200 ft² of area for the first coat, but on the second coat a gallon of the same paint will cover 300 ft². If the fence is to be given two coats of paint, how many gallons of paint should be bought?
31. A rectangle having area 392 m² is twice as long as it is wide. Find its dimensions.
32. The lengths of the sides of three squares are s , $s + 1$, and $s + 2$. If their total area is 365 cm², find their total perimeter.
33. Derive a formula for the area of the triangle shown by using the formula for the area of a rectangle.
34. The diagonals of a rectangle are 18 cm long and intersect at a 60° angle. Find the area of the rectangle.
35.
 - a. Suppose you have 40 m of fencing with which to make a rectangular pen for a dog. If one side of the rectangle is x m long, explain why the other side is $(20 - x)$ m long.
 - b. Express the area of the pen in terms of x .
 - c. Find the area of the pen for each value of x : 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20. Record your answers on a set of axes like the one shown.
 - d. Give the dimensions of the pen with the greatest area.
- C 36. A farmer has 100 m of fencing with which to make a rectangular corral. A side of a barn will be used as one side of the corral, as shown in the overhead view.
 - a. If the width of the corral is x , express the length and the area in terms of x .
 - b. Make a graph showing values of x on the horizontal axis and the corresponding areas on the vertical axis.
 - c. What dimensions give the corral the greatest possible area?
37. Draw a rectangle. Then construct a square with equal area.



Ex. 28



Ex. 33

