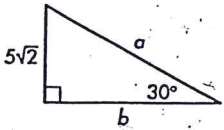


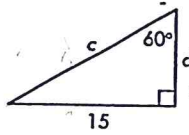
Practice Book  
Lesson 10.4

In Exercises 8–10, find each missing length. All lengths are in centimeters.

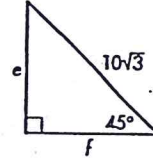
8.  $a =$   
 $b =$



9.  $c =$   
 $d =$

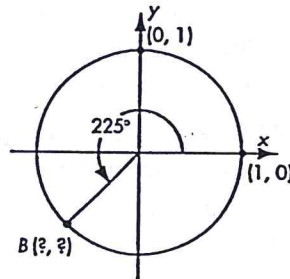
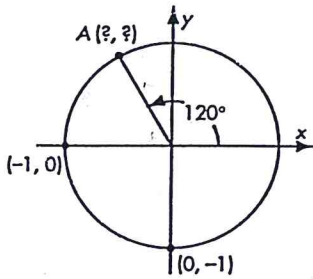


10.  $e =$   
 $f =$



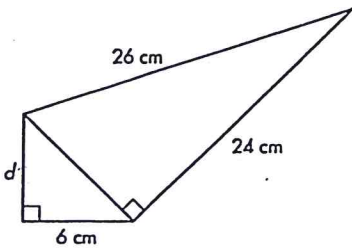
11. What are the coordinates of point A?

12. What are the coordinates of point B?



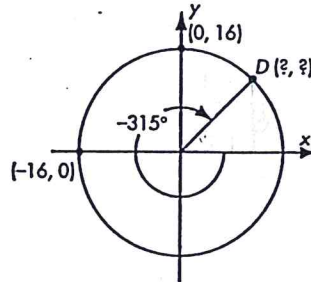
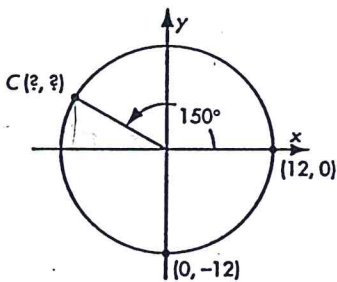
Lesson 10.5

1.  $d =$  \_\_\_\_\_



2. What are the coordinates of point C?

3. What are the coordinates of point D?

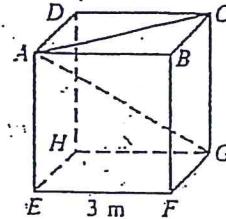
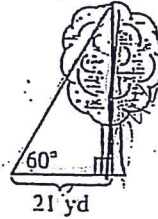


In Exercises 4–8, use  $\triangle ABC$  with vertices  $A(4, 14)$ ,  $B(10, 6)$ , and  $C(16, 14)$ .

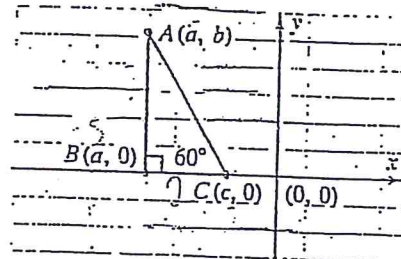
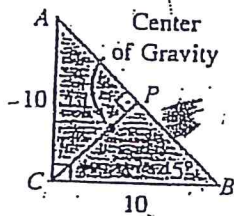
4. Determine whether  $\triangle ABC$  is scalene, isosceles, or equilateral and find its perimeter.

Answer Exercises 16–18 in radical form. Then calculate to the nearest hundredth.

16. Find the height of the tree.
17. Find the length of the diagonal of the face of the cube.
18. Find the length of  $\overline{AG}$  in the cube.
19. Find the perimeter of an equilateral triangle with an altitude  $6\sqrt{3}$  inches.
20. The legs of an isosceles triangle are  $10\sqrt{3}$  cm long. The vertex angle has a measure of  $120^\circ$ . Find the length of the base of the triangle and the length of the altitude from the vertex angle.

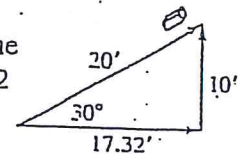


25. Each side of a regular hexagon  $PQRSTU$  measures 10 in. Find the lengths of the diagonals from  $P$ .
26. Find a formula for the length of the internal diagonal of any cube having an edge of length  $s$ .
27. In this triangular disk, the center of gravity is two-thirds of the way from  $C$  along altitude  $\overline{CP}$ . Find its distance from  $C$ .
28. Find the coordinates of  $A$  if  $c = -2$  and  $a = -5$ . Leave the answer in radical form.



Applications

29. Physics A body is displaced 20 ft in a direction  $30^\circ$  above the horizontal. This has the same result as a displacement of 17.32 ft along the horizontal followed by a move of 10 ft along the vertical. Verify that 17.32' and 10' are correct.



where the wires are attached?

