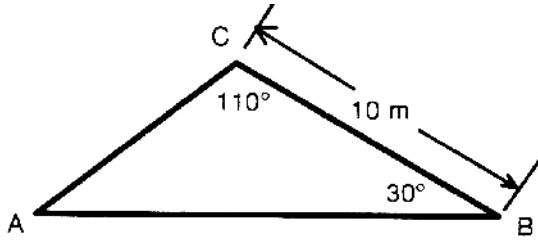


Statics - Skill Inventory

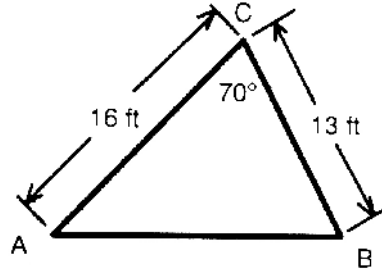
Work the following problems without the use of notes or references.
 (The drawings are not to exact scale.)

Find the length of side **AB** of the triangles.

1.

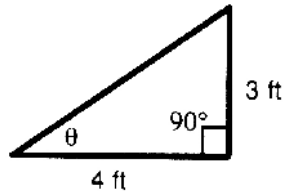


2.

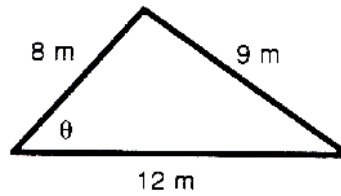


Find the angle θ in the triangles.

3.

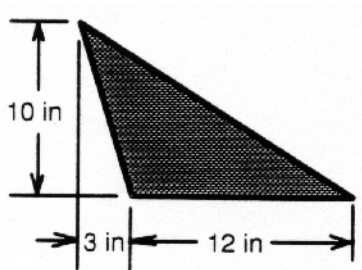


4.

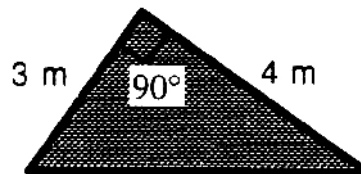


Find the area of each triangle.

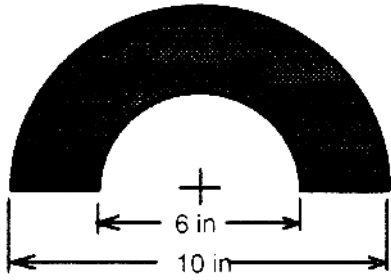
5.



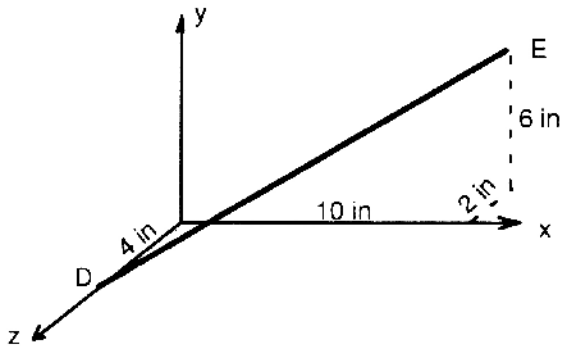
6.



7. Find the approximate area of the half-circular ring.



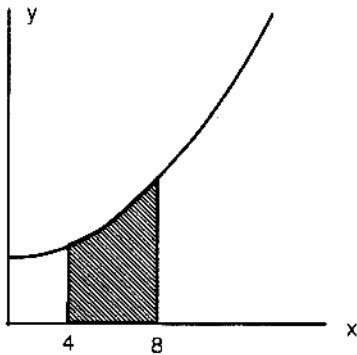
8. What is the length of line **D-E** ?



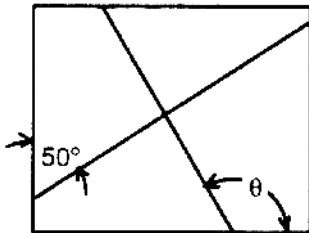
9. What is the slope of the line $y = 3x^3 + 7$ where it crosses the line $x = 2$?

10. What are the coordinates of the intersection of the lines $y = 7x - 3$ and $y = 3x + 10$?

11. Find the shaded area under the curve $y = x^2 + 2$.



12. The two lines within the rectangle are perpendicular to each other. What is the angle θ ?



13. Find the x coordinate of the point of intersection of the dashed lines. (The drawing is not to scale.)

