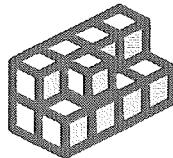


1.3 Surface Area

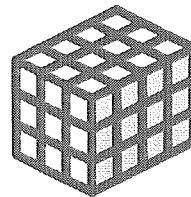
➤ Surface Area is the sum of the areas of all the faces (sides) of a 3-D Object.

1) In the following diagrams how many pieces have :

- a) 4 faces showing?
- b) 3 faces showing?
- c) 2 faces showing?
- d) 1 faces showing?

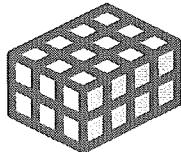


- a) 3 faces showing?
- b) 2 faces showing?
- c) 1 faces showing?
- d) No faces showing?

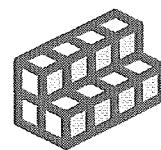


1) Determine the surface area of the composite of cubes. Each cube has sides of 1 unit.

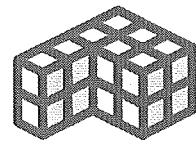
a)



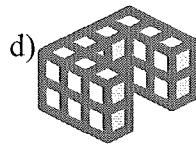
b)



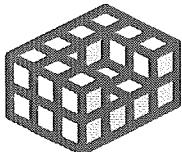
c)



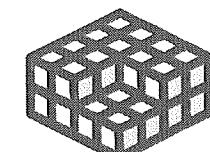
d)



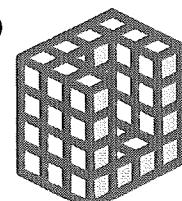
e)



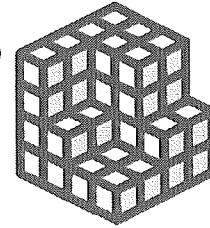
f)



g)

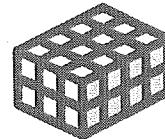


h)

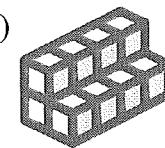


2) Determine the surface area of the composite of cubes. Each cube has sides of 2 units.

a)

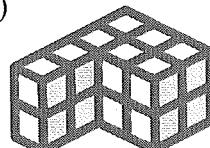


b)

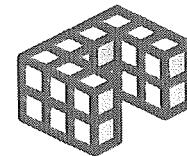


3) Determine the surface area of the composite of cubes. Each cube has sides of 3 units.

a)

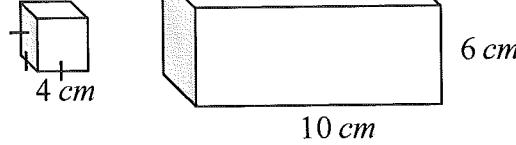


b)

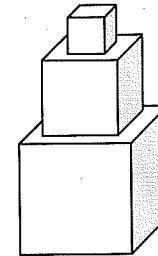
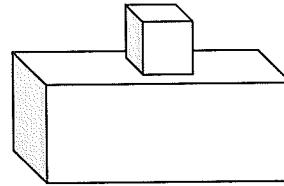
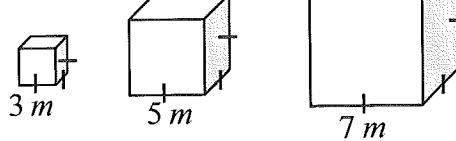


5) Determine the **total surface area** when the prisms are combined to form the composite object shown.

a)

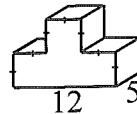


b)

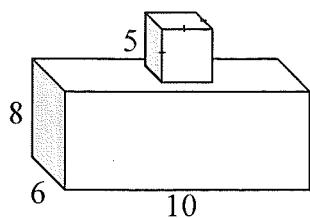


6) Determine the surface area of the composite figures. (all measurements are in cm)

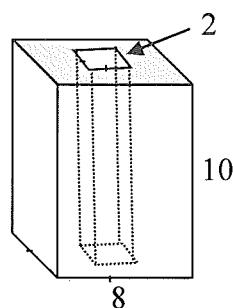
a)



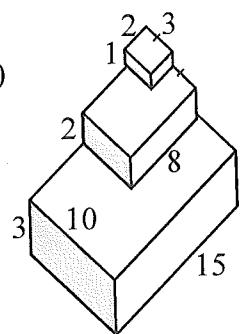
b)



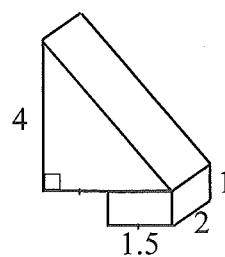
c)



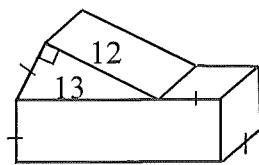
d)



e)

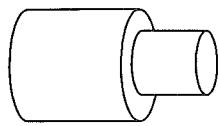
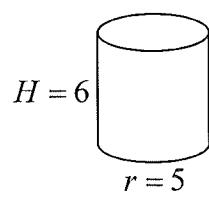
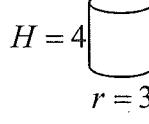


f)

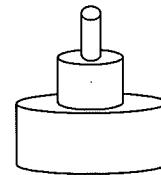
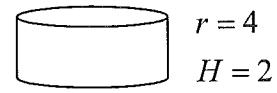
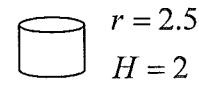
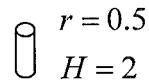


7) Determine the **total area** of overlap when the cylinders are combined to form the composite object shown.

a)

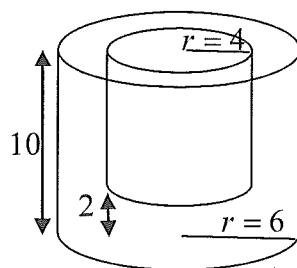


b)

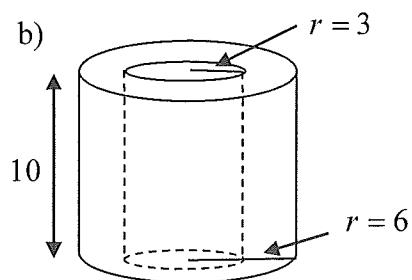


8) Determine the surface area of the composite figures. (all measurements are in cm)

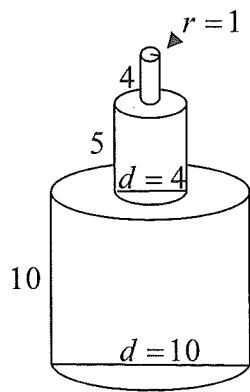
a)



b)



c)



9) A bedroom with a rectangular shaped floor has a length of 8.5 feet, a width 9.5 feet and a height of 10 feet. It has one rectangular shaped door with dimensions 3 feet by 7 feet. Assuming there are no windows, find the surface area of the walls and ceilings. If one can of paint covers 175 feet squared, and you need to apply 2 coats of paint, how many cans of paint are required to paint the room?

10) A can of peas has a height of 10 cm and a circumference of $8\pi \text{ cm}$. What amount of paper is needed to make labels for 20 cans of peas?