

## Class / Homework

Practice Page 40 - 43

Questions :

page 40

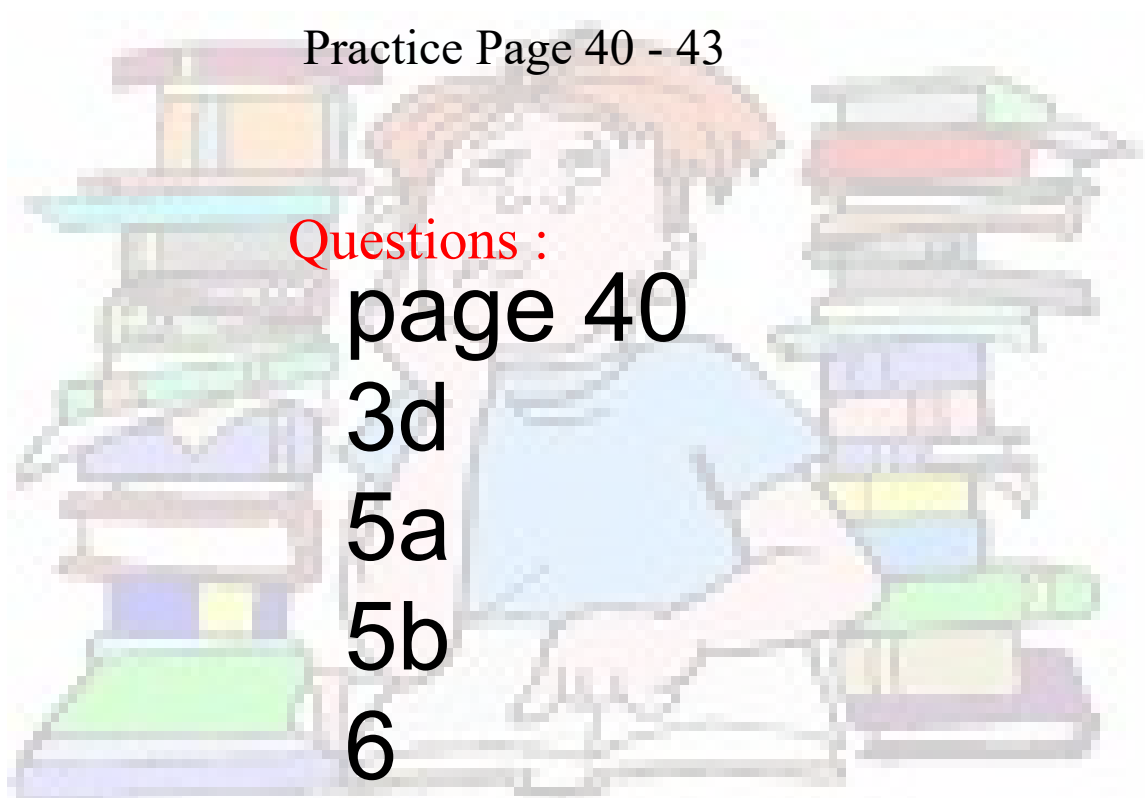
3d

5a

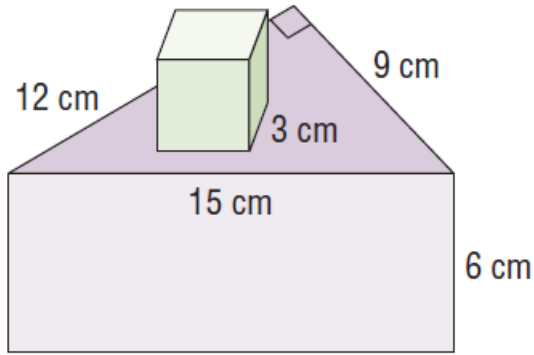
5b

6

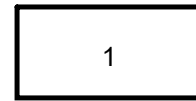
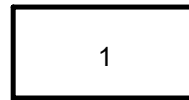
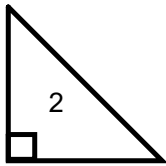
7(try)



d) cube on a triangular prism



Triangular Prism



Total SA Large =

Cube

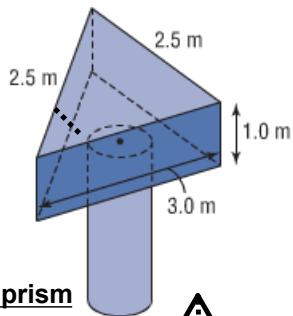


Area =

$$\text{Total SA} = \text{Triangular Prism} + \text{Cube} - \text{Overlap}$$

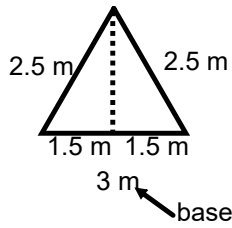
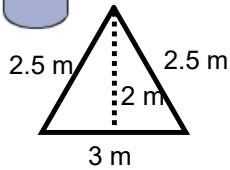
5. Determine the surface area of each composite object.

a) The cylinder is 2.5 m long with radius 0.5 m.



**Triangular prism**

$$A = \frac{b \times h}{2}$$



$$\text{height}^2 = c^2 - b^2$$



Total SA Triangular Prism =

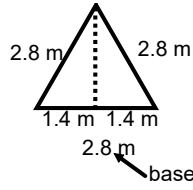
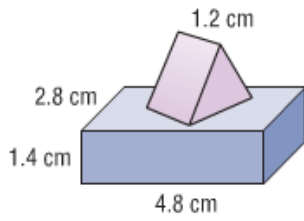
**Cylinder**      $r =$       $h =$

$$\text{Area of cylinder} = 2\pi r^2 + 2\pi rh$$

**Area of Overlap**

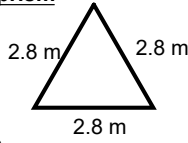
Total Surface = Triangular Prism + Cylinder - total overlap

b) The base of the triangular prism is an equilateral triangle with side length 2.8 cm.

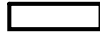


$$\text{height}^2 = c^2 - b^2$$

Triangular prism



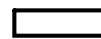
$$A = \frac{b \times h}{2}$$



$$A = b \times h$$



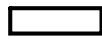
$$A = b \times h$$



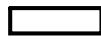
$$A = b \times h$$

Total SA Triangular Prism = 2 triangles + rectangle + rectangle + rectangle

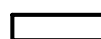
Prism ( \_\_, \_\_, \_\_ )



$$A = b \times h$$



$$A = b \times h$$



$$A = b \times h$$

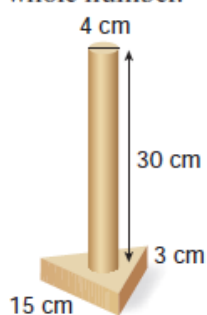
SA Prism =

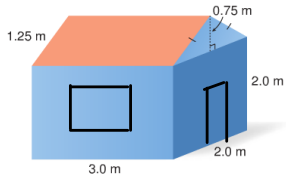
Overlap Area

Total SA = Triangular Prism + Rectangular Prism - overlap

**Apply**

6. Here is the lamp stand from the top of page 33. The base of the lamp is a triangular prism with an equilateral triangle base. The surface of the stand is to be painted. What is the area that will be painted? Give the answer to the nearest whole number.



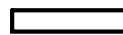
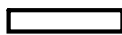
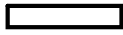


Triangular Prism

Area of Triangle =  $\frac{b \times h}{2}$

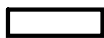
b) Door is 0.5m x 1m  
2 Windows 1m x 1 m

Without  
 bottom



Total SA =

Prism ( \_\_, \_\_, \_\_ )



SA Prism =

Overlap =

without bottom = Triangular Prism + Rectangular Prism - overlap - bottom

8. Jemma has built this doghouse. The roof is a triangular prism with an isosceles triangle base. There is an overhang of 0.1 m. There is an opening for the doorway.

- a) Determine the surface area of the doghouse.

