

Unit 5

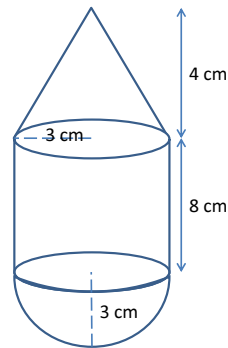
L6 Areas of Composite solids

Unfamiliar Solids can be broken down into simpler solids so that their area and volume can be calculated more easily.



1

Ex 1:



Note the hidden bases between the cone, cylinder, and the hemisphere.

2

When you have a composite solid:

- 1. Separate and identify the solids involved.
- 2. Write the formulas for all the lateral areas involved, and only the visible bases.
- 3. Calculate them and add them together.
- 4. Watch out for hidden bases whose areas should not be included.

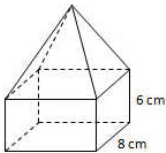


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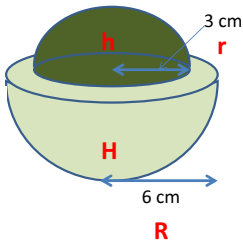
Ex 2:

The solid shown below consists of a square base pyramid joined to a square base prism. The height of each lateral surface of the pyramid is 12 cm, and the prism's dimensions are 8 cm by 8 cm and a height of 6 cm. Find the total surface area.

Note the hidden base between the pyramid and the prism.



Ex 3:
A hemisphere is placed on the flat surface of another hemisphere. What is, rounded to the nearest unit, the total area of this solid?



5

Practice:
5.5 Set 4



6