Volume – counting cubes



1 Use seven cubes to make three different shapes. Each shape must use all the cubes.







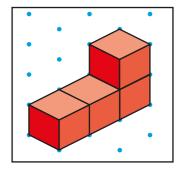




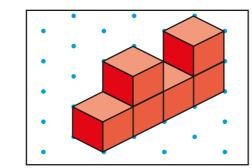


2 How many cubes are needed to make each shape?
There are no hidden cubes.

a)



c)

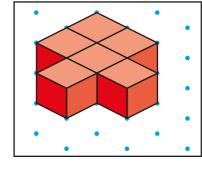


4 cubes

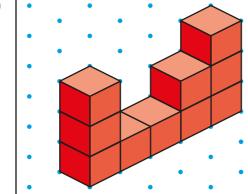


6 cubes

b)



d)

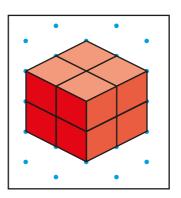


6 cubes

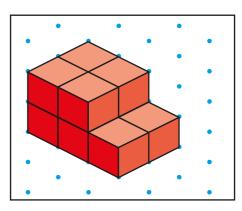


How many cubes are needed to make the following shapes?

a)



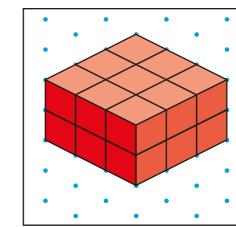
d)



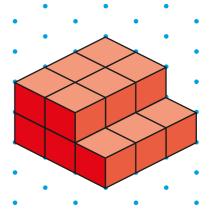
8 cubes



b)



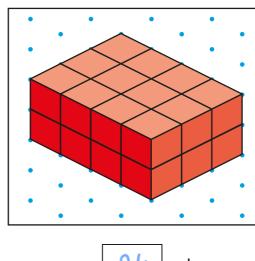
,



cubes



c)

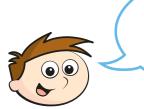


24 cubes

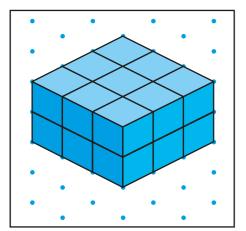
Discuss the method you used with a partner.



4



There are 14 cubes in the cuboid.

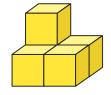


Explain Teddy's mistake.

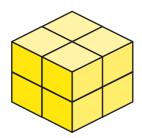
He hasn't included the ones at the back that aren't visible from this angle.

If one cube is worth 1 cm³, what are the volumes of the shapes?

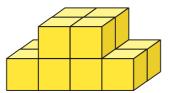
a)



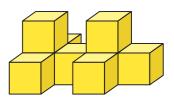
b)



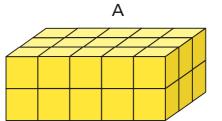
c)

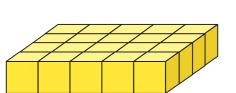


d)



6 Here are two cuboids made of 1 cm³ cubes.





В

Which shape has the greater volume? _____A

Show all your working to prove your answer.

7 A shape has a volume of 24 cm³



