Volume – counting cubes

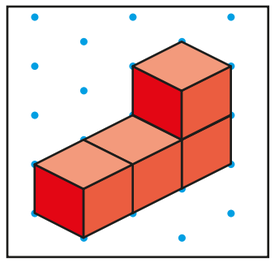
1 Use seven cubes to make three different shapes.

Each shape must use all the cubes.

2 How many cubes are needed to make each shape?

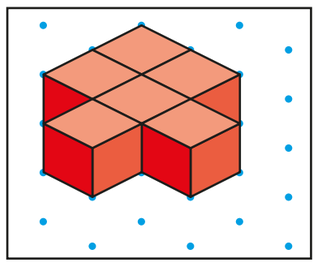
There are no hidden cubes.

a)



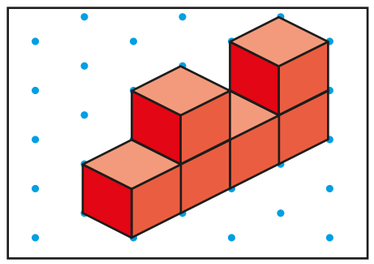
4 cubes

b)



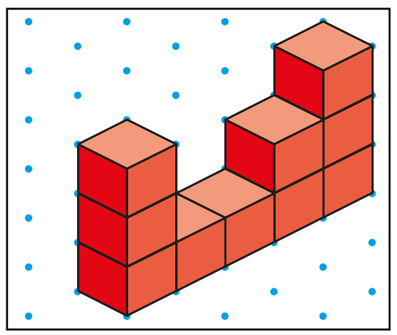
6 cubes

c)



6 cubes

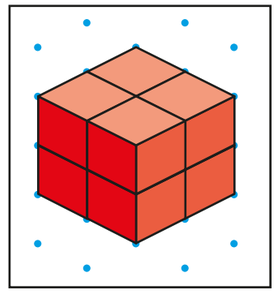
d)



10 cubes

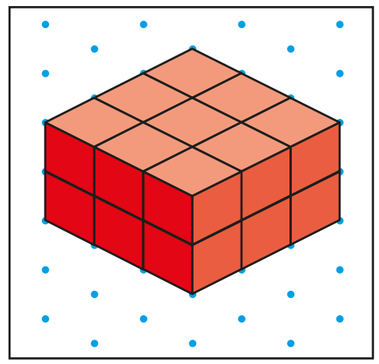
3 How many cubes are needed to make the following shapes?

a)



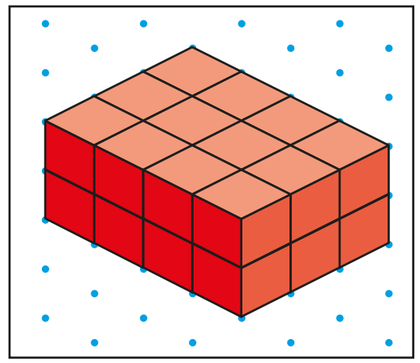
8 cubes

b)



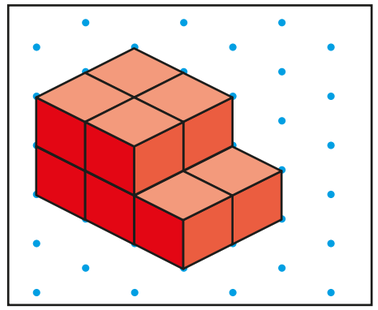
18 cubes

c)



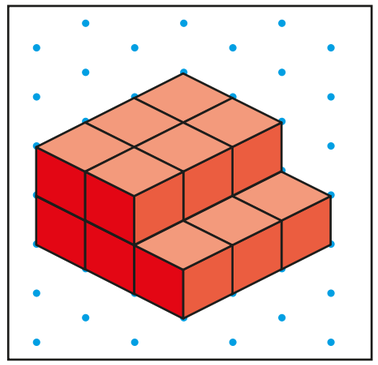
24 cubes

d)



10 cubes

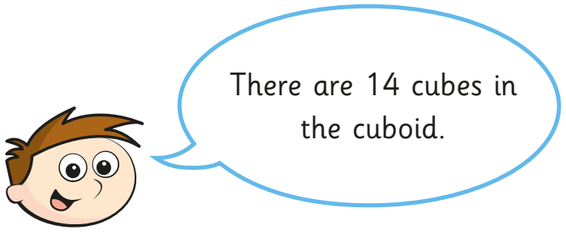
e)

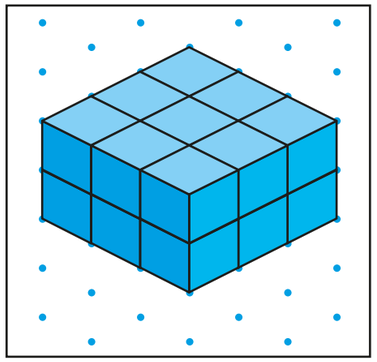


15 cubes

Discuss the method you used with a partner.

4



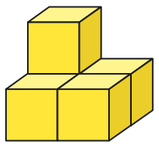


Explain Teddy's mistake.

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

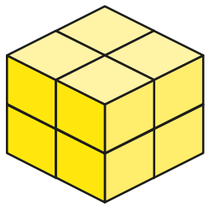
5 If one cube is worth 1 cm^3, what are the volumes of the shapes?

a)



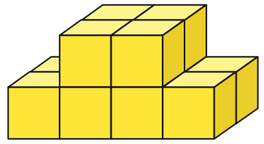
volume = 5 cm^3

b)



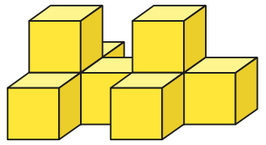
volume = 8 cm^3

c)



volume = 12 cm^3

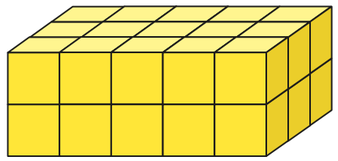
d)



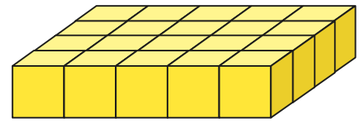
volume = 8 cm^3

6 Here are two cuboids made of 1 cm^3 cubes.

A



B



Which shape has the greater volume? A

Show all your working to prove your answer.

7 A shape has a volume of 24 cm^3

Make two possible shapes from cubes and then draw them.

e.g.