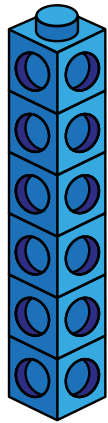


Compare volume

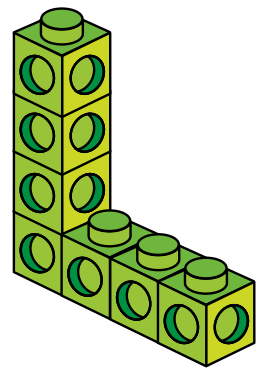


- 1 Whitney and Tommy have each made a shape using cubes. Each cube has a volume of 1 cm^3

Whitney



Tommy



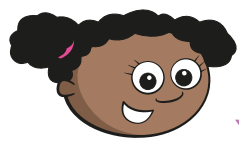
a) What is the volume of Whitney's shape?

6 cm^3

b) What is the volume of Tommy's shape?

7 cm^3

c) Whitney and Tommy are comparing the volumes of their shapes.



My shape has a greater volume because it is taller.

Whitney



My shape has a greater volume because I used more cubes.

Tommy

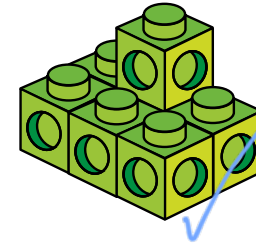
Who do you agree with? Tommy

Explain your answer.

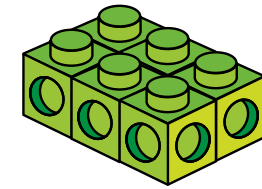
More cubes means a greater volume. Whitney's shape is taller but Tommy's is wider.

- 2 Each cube has a volume of 1 cm^3
What is the volume of each shape?

a)

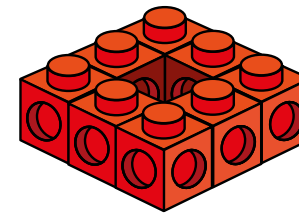


volume = 7 cm^3

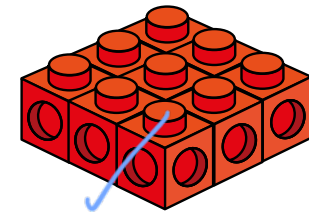


volume = 6 cm^3

b)

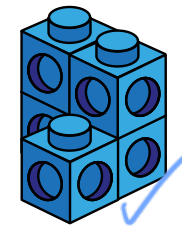


volume = 8 cm^3

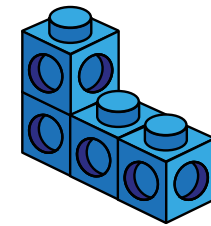


volume = 9 cm^3

c)

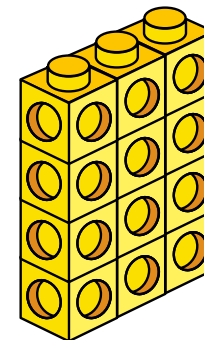


volume = 5 cm^3

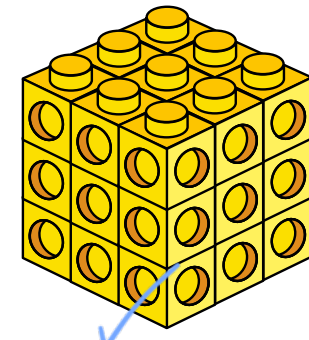


volume = 4 cm^3

d)



volume = 12 cm^3

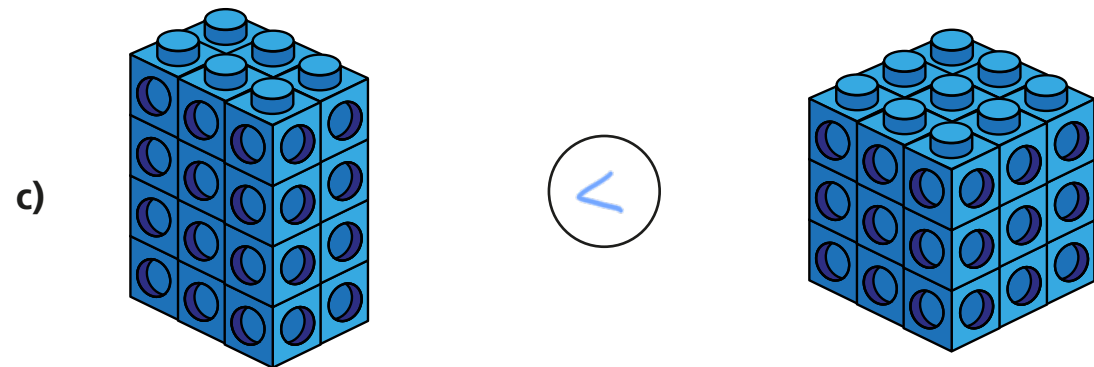
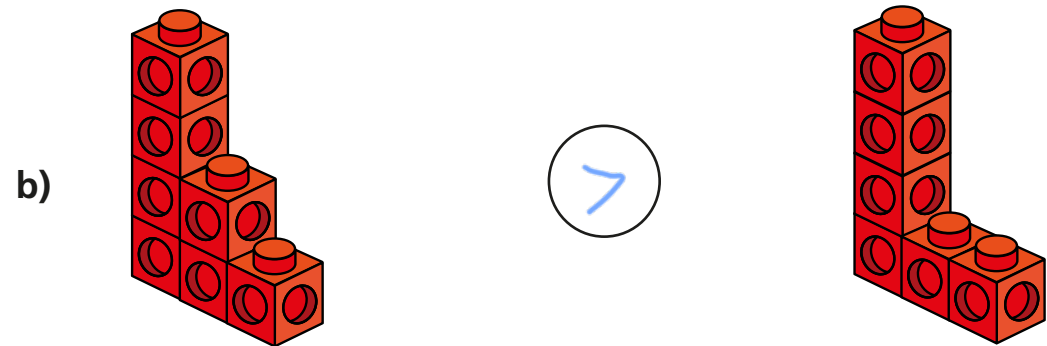
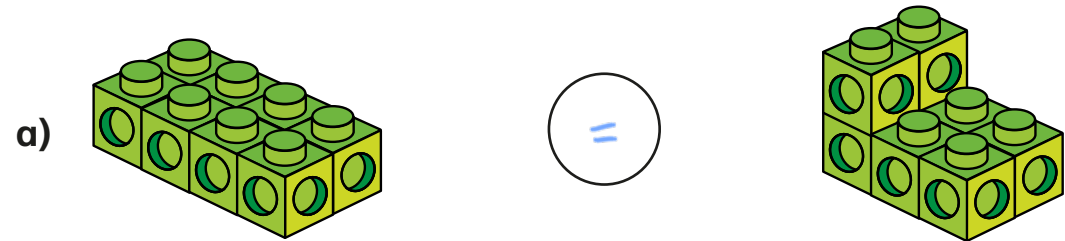


volume = 27 cm^3

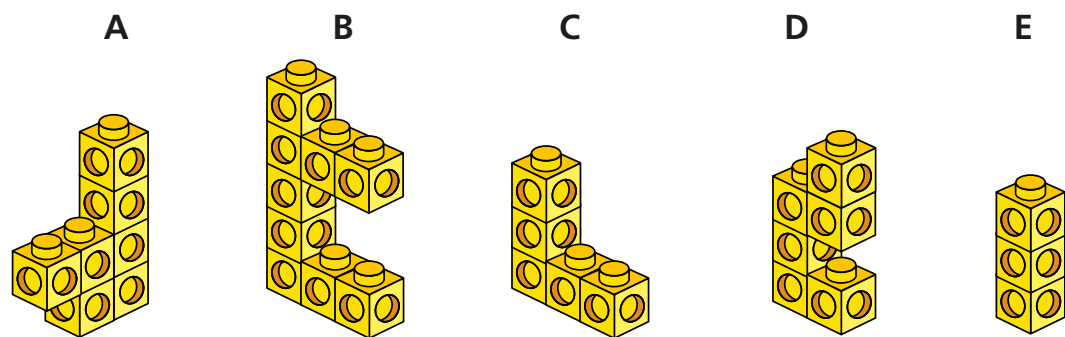
Tick the shape with the greater volume in each pair.



3 Write $<$, $>$ or $=$ to compare the volumes of the shapes.



4 Here are some shapes made from cubes.



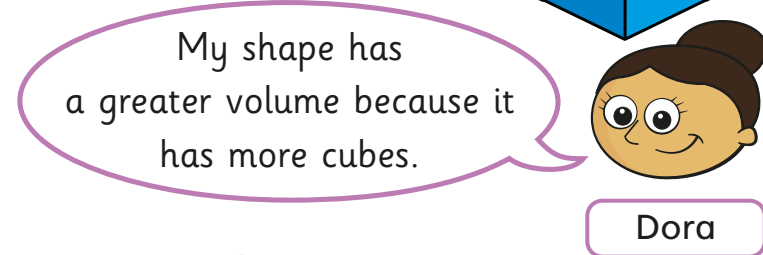
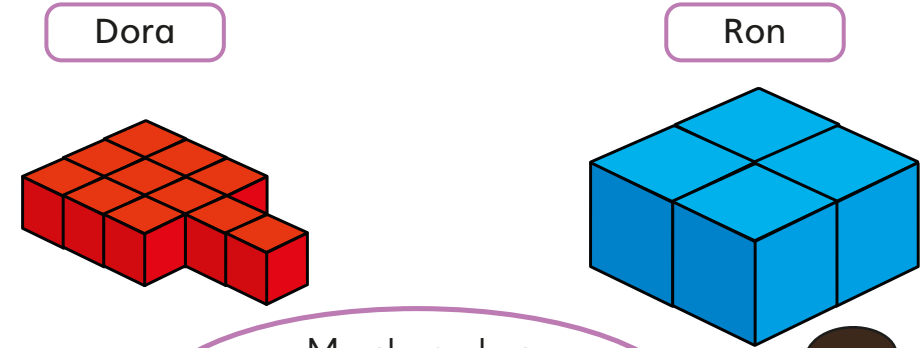
Put the shapes in ascending order of volume.

E C D A B

Make your own shapes for a partner to put in order.



5 Dora and Ron have each made a shape using cubes.

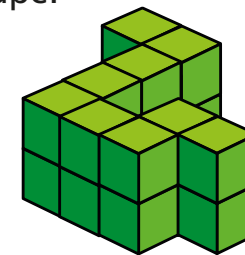


Do you agree with Dora? No

Talk about it with a partner.

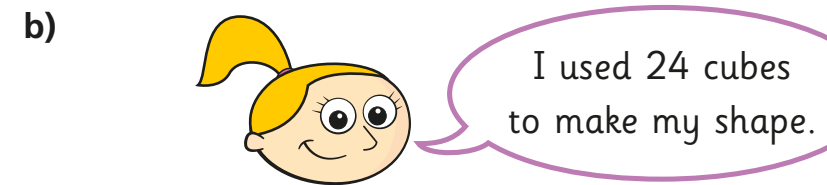
6 Amir, Eva and Alex have made shapes out of centimetre cubes.

a) Amir has made this shape.



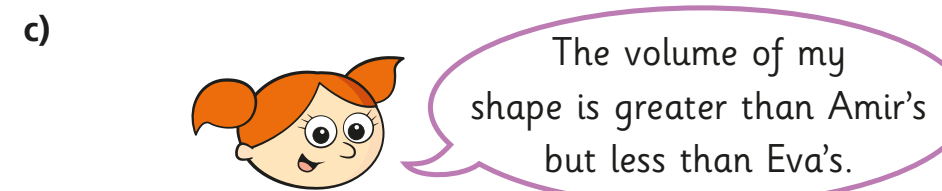
What is the volume of Amir's shape?

18 cm³



What is the volume of Eva's shape?

24 cm³



What could the volume of Alex's shape be?

e.g. 20 cm³

Compare answers with a partner.

