Finding the Volume of Triangular Prisms

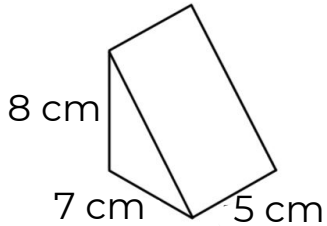
Maths

Miss Davies

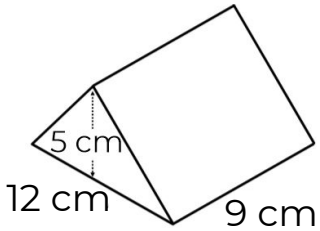
Finding the Volume of Triangular Prisms

1. Calculate the volume of the triangular prisms.

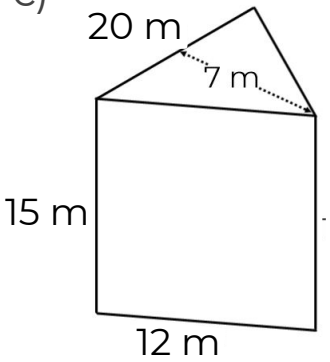
a)



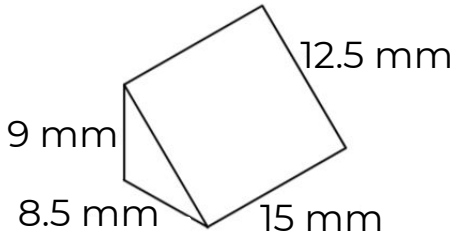
b)



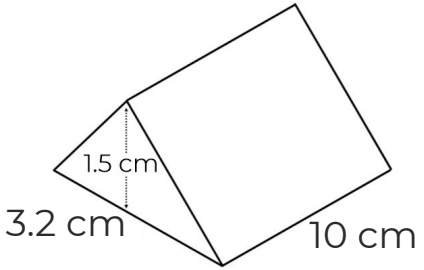
c)



d)



2. Tom and Lisa are finding the volume of the triangular prism.



Their working out is shown.

Tom

$$\frac{3.2 \times 1.5 \times 10}{2}$$

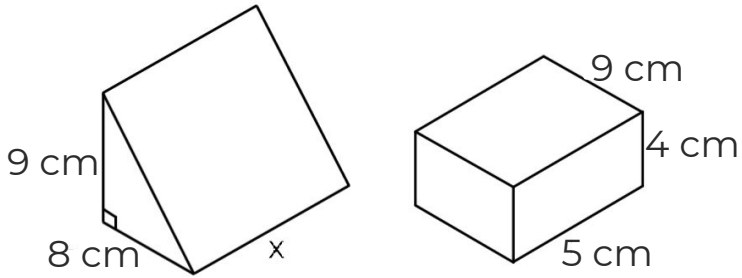
Lisa

$$\frac{3.2 \times 1.5}{2} \times 10$$

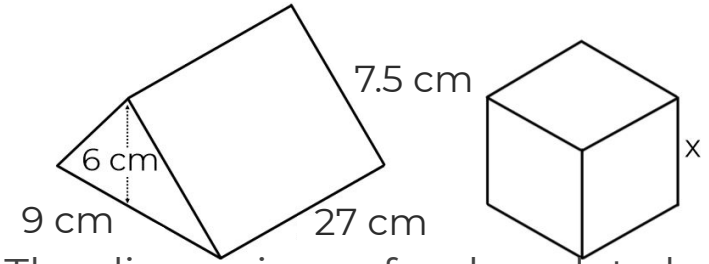
Who is correct?

Finding the Volume of Triangular Prisms

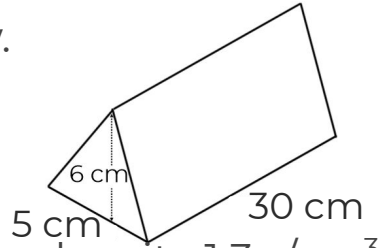
3. The triangular prism and cuboid have the same volume.
Find the length x.



4. The triangular prism and cube have the same volume. Find the length x.



5. The dimensions of a chocolate bar are shown below.



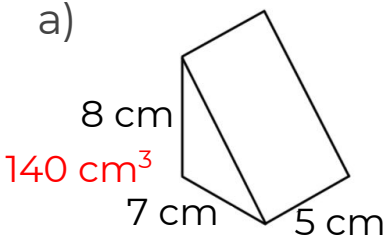
Chocolate has the density 1.3g/cm^3.
What is the mass of the bar?

Answers

Finding the Volume of Triangular Prisms

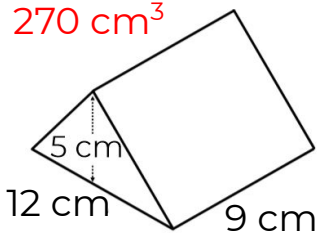
1. Calculate the volume of the triangular prisms.

a)

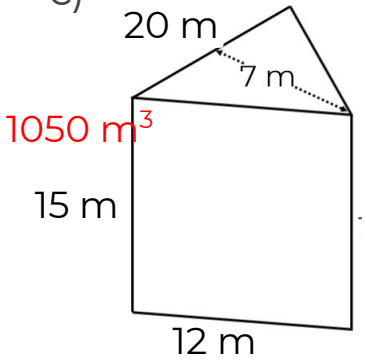


140 cm^3

b) 270 cm^3

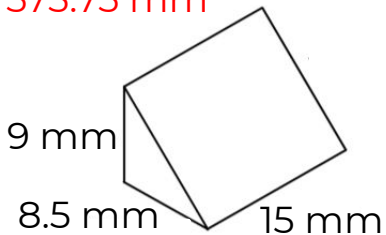


c)

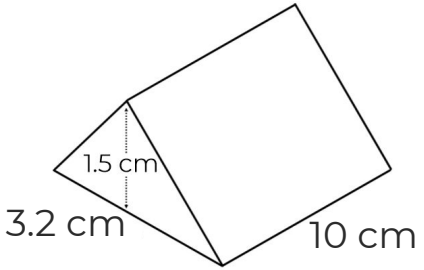


1050 m^3

d) 573.75 mm^3



2. Tom and Lisa are finding the volume of the triangular prism.



Their working out is shown.

Tom

$$\frac{3.2 \times 1.5 \times 10}{2}$$

Lisa

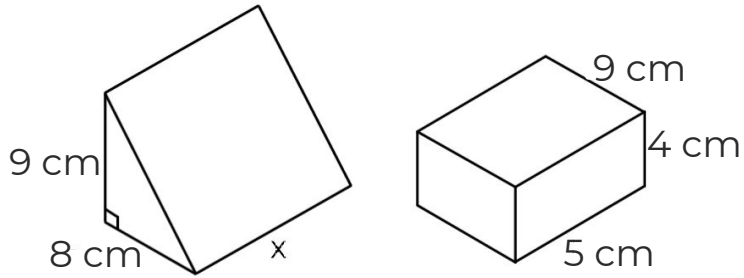
$$\frac{3.2 \times 1.5}{2} \times 10$$

Who is correct?

They are both correct – both calculations give 24 cm^3 as an answer.

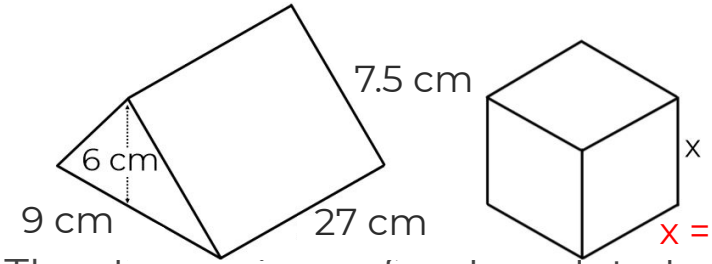
Finding the Volume of Triangular Prisms

3. The triangular prism and cuboid have the same volume.
Find the length x.



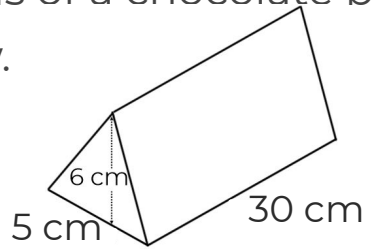
x = 5 cm

4. The triangular prism and cube have the same volume. Find the length x.



x = 9 cm

5. The dimensions of a chocolate bar are shown below.



585 g

Chocolate has the density 1.3g/cm^3.
What is the mass of the bar?