Finding the Surface Area of Triangular Prisms

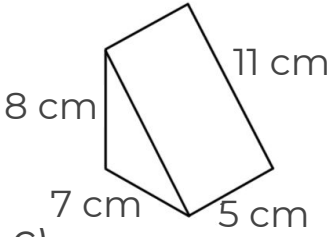
Maths

Miss Davies

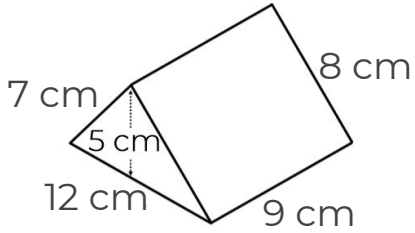
Surface Area of Triangular Prisms

1. Calculate the surface area.

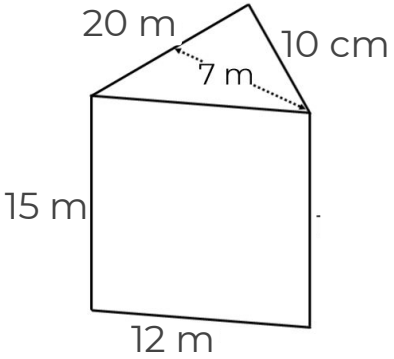
a)



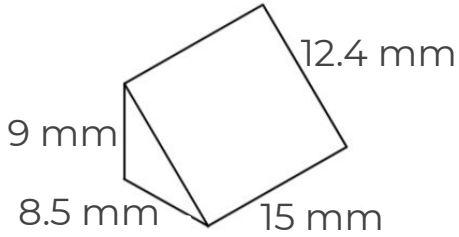
b)



c)

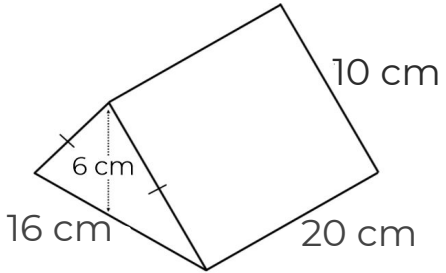


d)



2. Calculate the surface area of an equilateral triangular prism.
The cross section has a base of 6 cm and a height of 5 cm. The prism has a depth of 8 cm.

3. Calculate the surface area of the isosceles triangular prism.



Surface Area of Triangular Prisms

4. Rory is finding the surface area of an isosceles triangular prism.

There are two of every face.

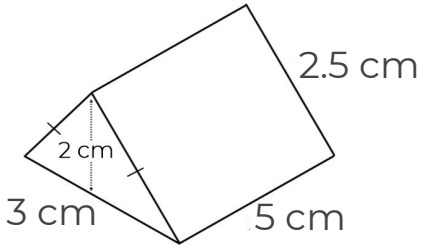
$3 \times 2 \div 2 = 3$ (ends)

$2.5 \times 5 = 12.5$

$3 \times 5 = 15$

$3 + 12.5 + 15 = 30.5$

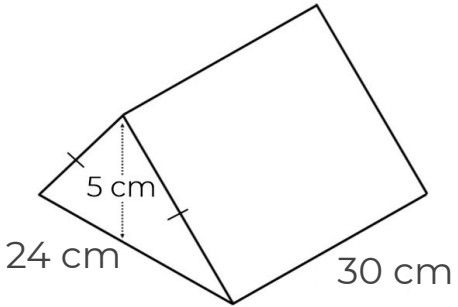
$30.5 \times 2 = 61\ cm^2$



Rory is wrong.

What mistake has he made?

5. Find the surface area of the isosceles triangular prism.

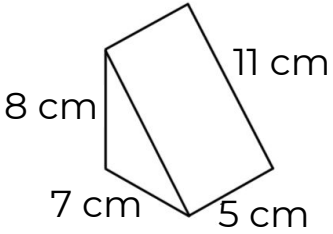


Answers

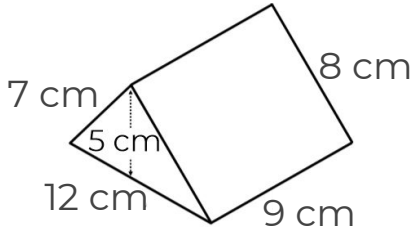
Surface Area of Triangular Prisms

1. Calculate the surface area.

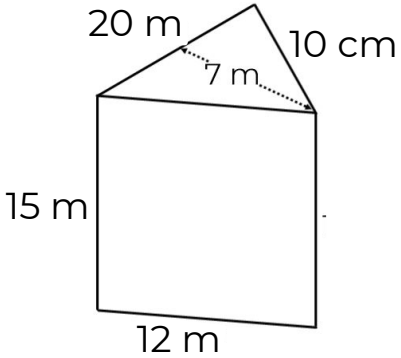
a) 186 cm^2



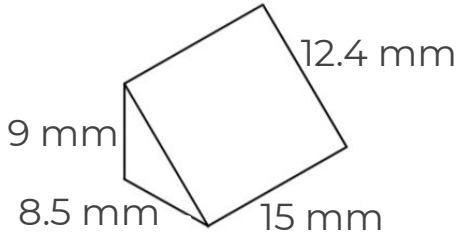
b) 303 cm^2



c) 770 m^2



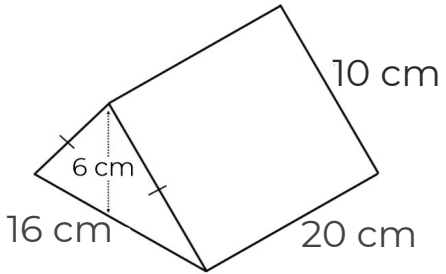
d) 525 mm^2



2. Calculate the surface area of an equilateral triangular prism.
The cross section has a base of 6 cm and a height of 5 cm. The prism has a depth of 8 cm.

174 cm^2

3. Calculate the surface area of the isosceles triangular prism.



816 cm^2

Surface Area of Triangular Prisms

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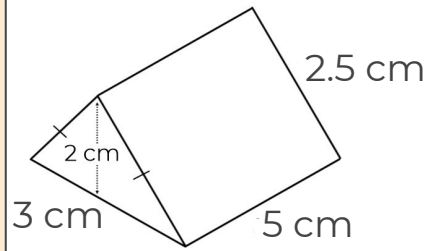
$3 \times 5 = 15$
$3 + 12.5 + 15 = 30.5$
$30.5 \times 2 = 61\ cm^2$



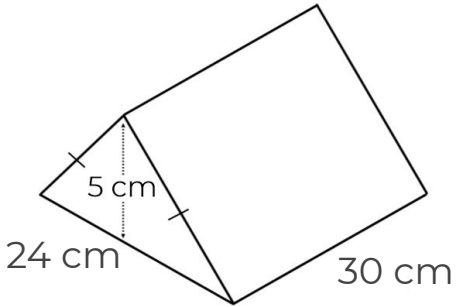
Rory is wrong.

What mistake has he made?

The base ($15cm^2$) only appears once.

The correct answer is 46 cm^2.

5. Find the surface area of the isosceles triangular prism.



1620 cm^2