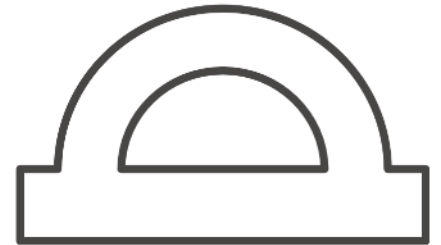
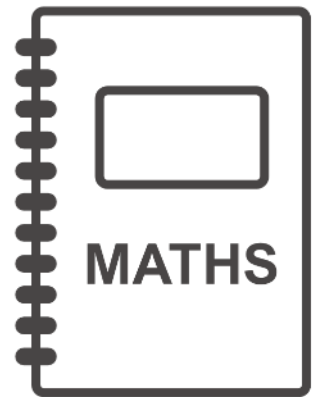
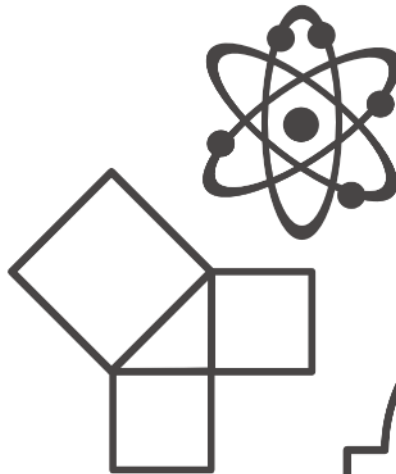
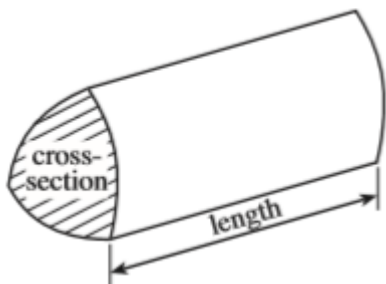
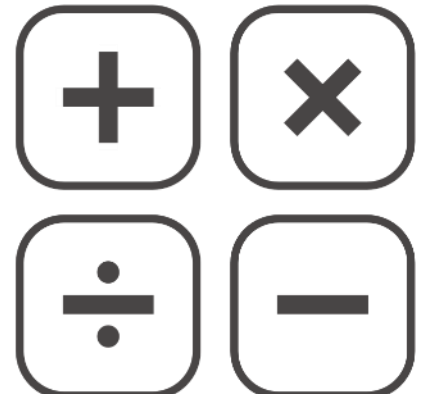
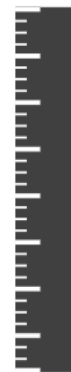
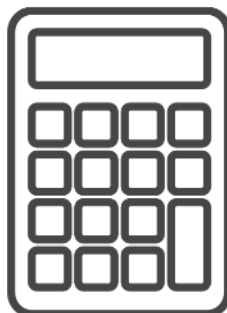
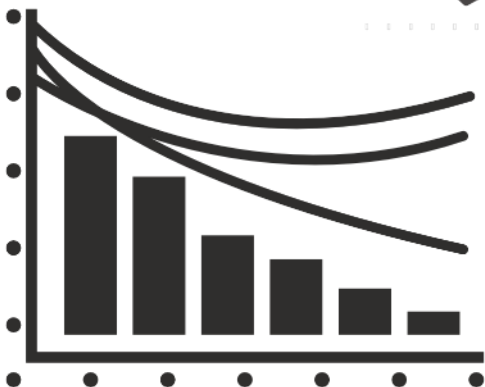
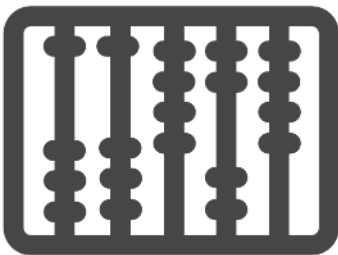
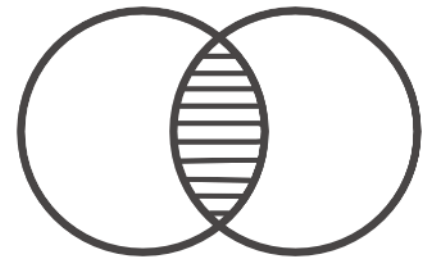
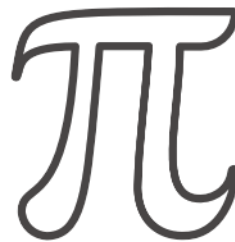


GCSE TOPIC BOOKLET VOLUME OF A PRISM

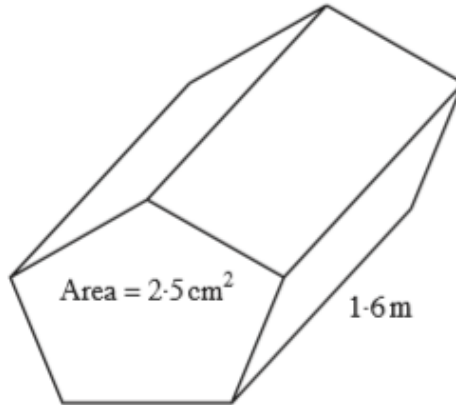
Volume of prism = area of cross-section \times length



$$a^2 = b^2 + c^2$$



1. Calculate the volume of a prism with an area of cross-section 2.5 cm^2 and length 1.6 m , giving your answer in cm^3 .



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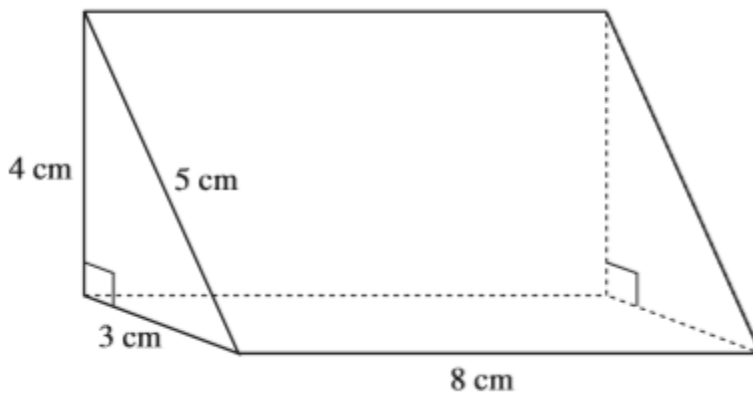
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[3]

2. Calculate the volume of the triangular prism



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(3)

4.

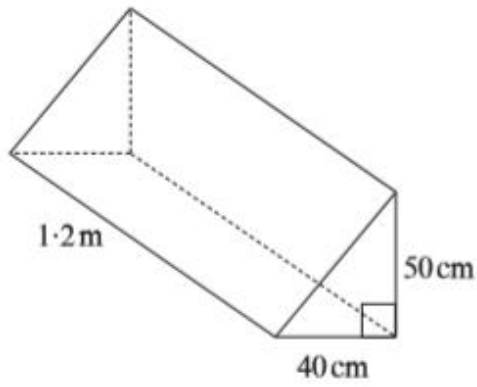


Diagram not drawn to scale

Calculate the volume of the triangular prism, giving your answer in cm^3 .

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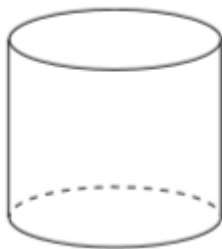
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[4]

5.



Jenny knows that this cylinder has a volume of 300 cm^3 . If the cylinder is 15 cm tall, what is the area of the circular base?

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(3)

6. The volume of a square based cuboid is 150 cm^3 . The height of the cuboid is 6 cm .

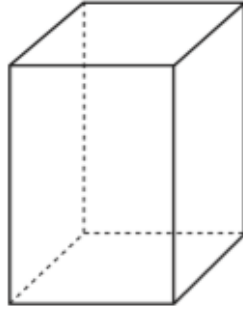


Diagram not drawn to scale.

Find the length of the sides of the base of the cuboid.

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[3]

7.

The uniform cross-section $ABCD$ of a solid block is a parallelogram with $DC = 10.6$ cm and the perpendicular distance between the parallel sides, EF , is 8.2 cm as shown below. The length of the block is 15.7 cm.

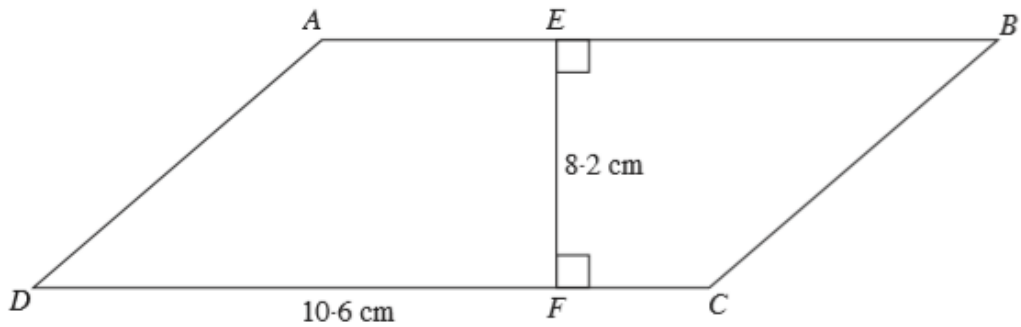


Diagram not drawn to scale.

Calculate the volume of the block.

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[3]

8. The uniform cross-section of a trapezoidal prism is shown below. The length of the prism is 14 cm. Calculate the volume of the trapezoidal prism.

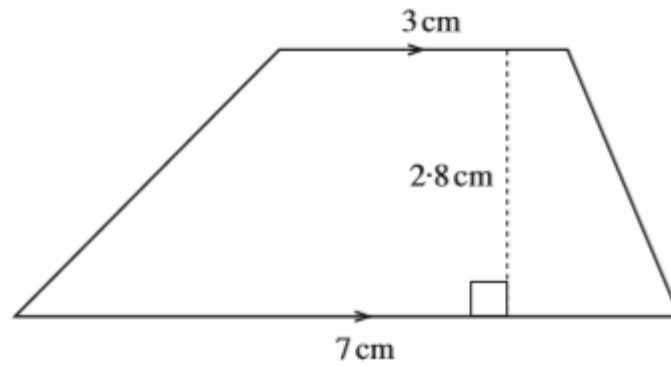


Diagram not drawn to scale.

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(5)

9. The uniform cross-section of a trapezoidal prism is shown below. The length of the prism is 0.4 m. Calculate the volume of the trapezoidal prism.

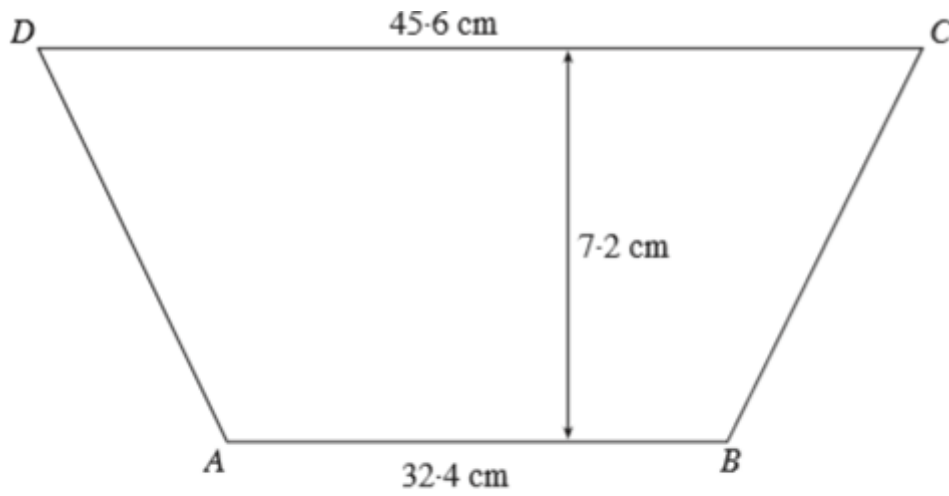


Diagram not drawn to scale.

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(6)