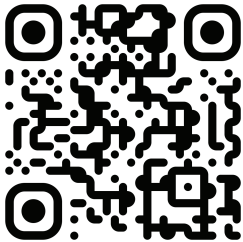


GR 8

PYTHAGORAS

Intro to Pythagoras



- Lesson 1.1 When to use Pythagoras?
- Lesson 1.2 Finding the length of the hypotenuse

Determine the length of the unknown sides. *(Triangles are not drawn to scale)*

1)

2)

3)

4)

5)

6)

7)

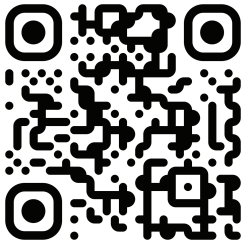
8)

GR

8

PYTHAGORAS

Working out a shorter side



Lesson 1.3 Shorter side

Determine the length of the unknown sides. (Triangles are not drawn to scale)

1)

2)

3)

4)

5)

6)

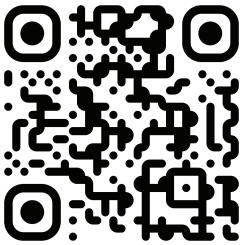
7)

8)

**GR
8**

PYTHAGORAS

Converse of Pythagoras

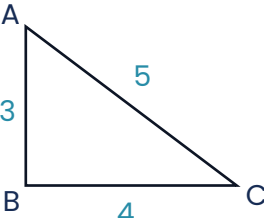


Lesson 1.4

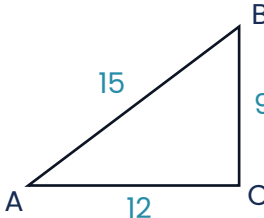
Converse of Pythagoras

Determine if the following triangles are right-angled triangles.
(Triangles are not drawn to scale)

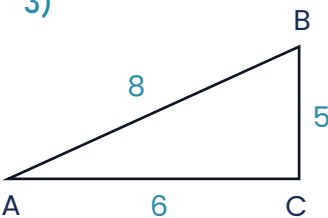
1)



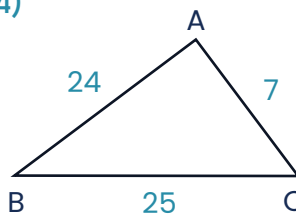
2)



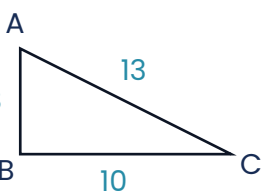
3)



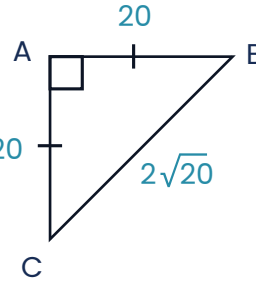
4)



5)



6)

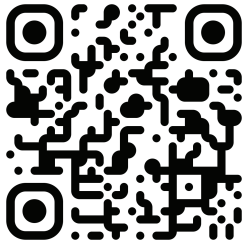


7) Side lengths for triangles are given below.
 State whether they are right-angled triangles.

Side lengths	Yes / No	Proof
5, 12, 13	-----	-----
7, 10, 12	-----	-----
14, 10, 9	-----	-----

GR 8 PERIMETER

Perimeter of 2D shapes

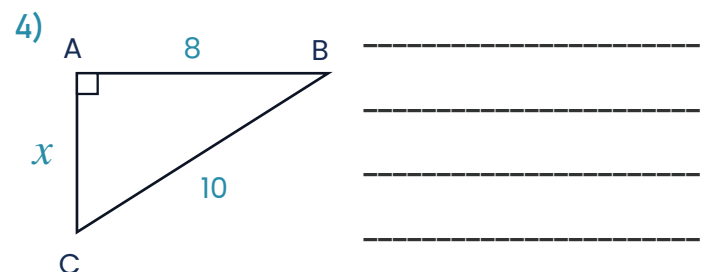
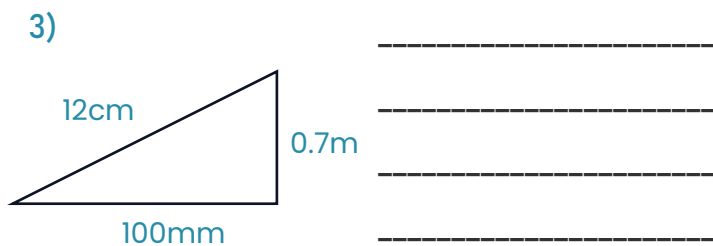
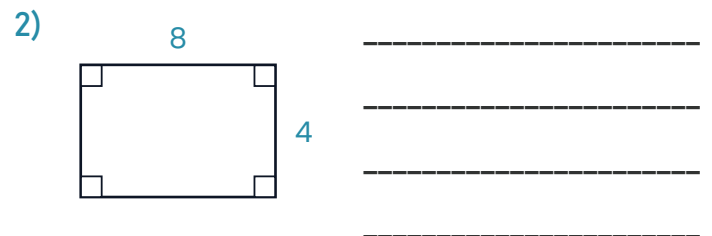
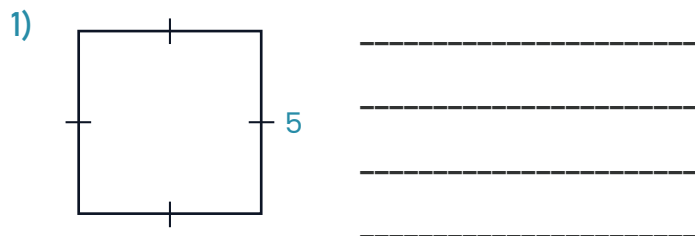


Lesson 2.1 Revision

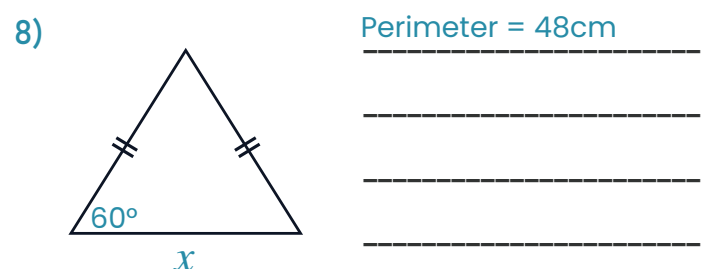
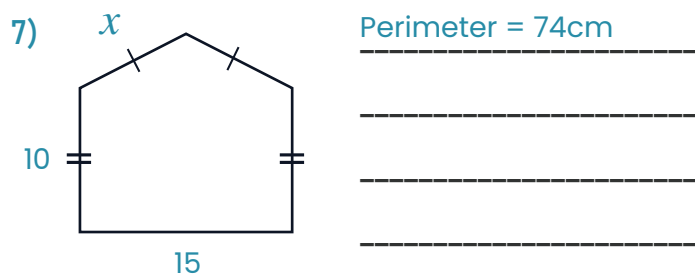
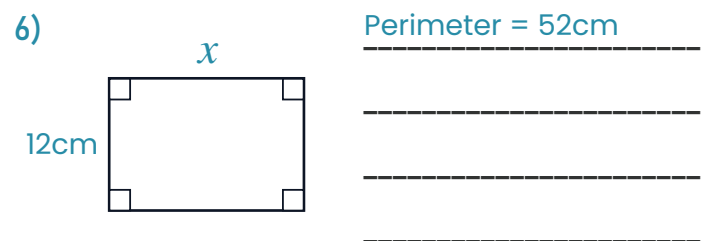
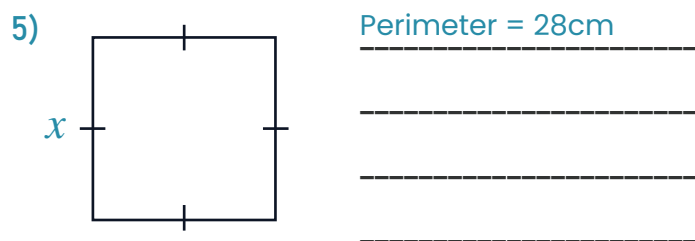
Lesson 2.2 Perimeter of shapes

Lesson 2.3 Working backwards

Determine the perimeter of the following shapes. (*Shapes are not drawn to scale*)



Determine the unknown side in the following shapes. (*Shapes are not drawn to scale*)

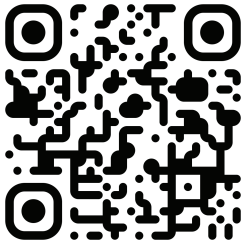


GR

8

PERIMETER

Perimeter / Circumference of circles



- Lesson 2.4** Circumference of a circle
- Lesson 2.5** Arc and perimeter of a semi-circle
- Lesson 2.6** Arc and perimeter of a sector

Determine the perimeter of the following circles.

1)

10m

2)

10m

3)

5cm

4)

7km

Determine the arc length and perimeter of the shapes below.

5

10m

6)

10m

7)

5cm

60°

8)

8m

140°

GR 8 AREA

Area of 2D shapes

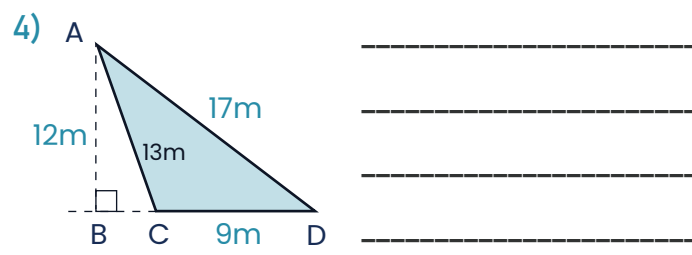
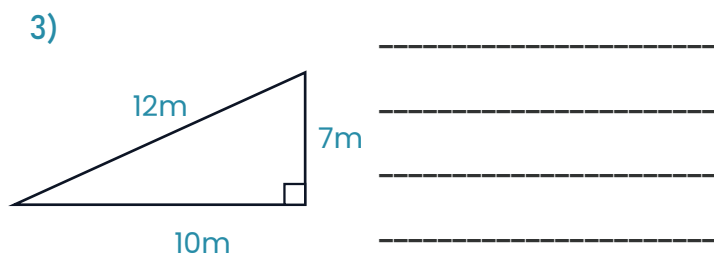
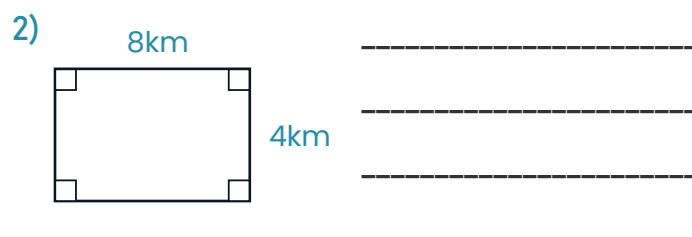
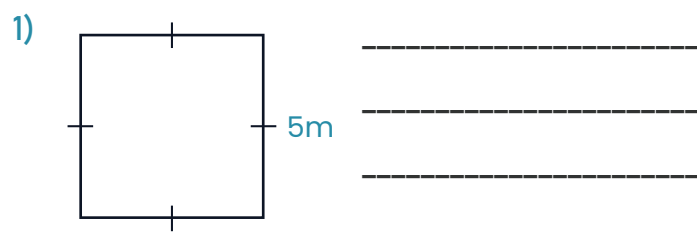


Lesson 3.1 Area of shapes

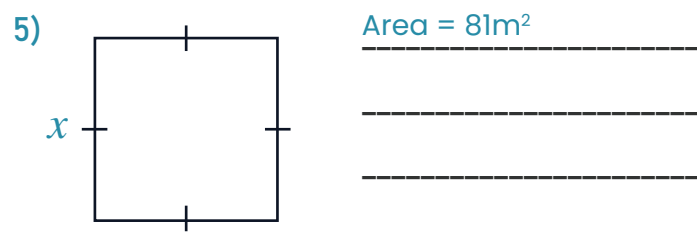
Lesson 3.2 Area of triangles

Lesson 3.3 Working backwards

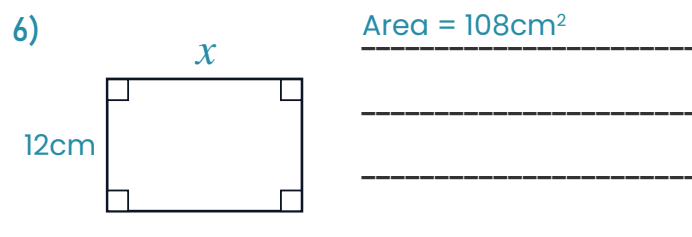
Determine the area of the following shapes. (*Shapes are not drawn to scale*)



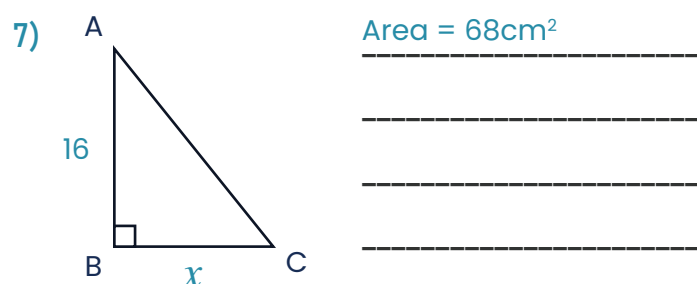
Determine the unknown side in the following shapes. (*Shapes are not drawn to scale*)



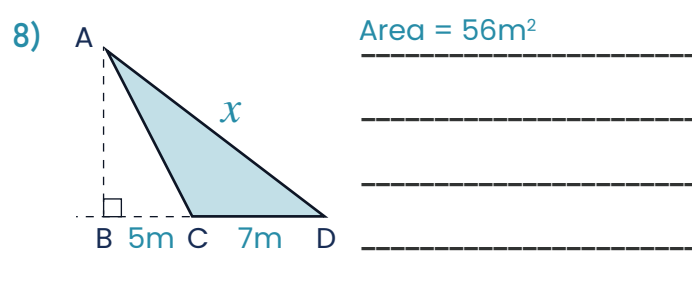
Area = 81m^2



Area = 108cm^2

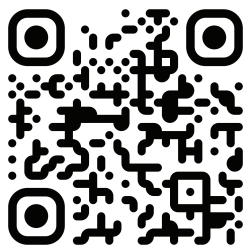


Area = 68cm^2



Area = 56m^2

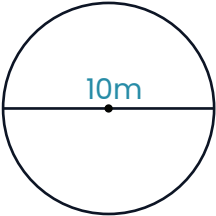
Area of circles & sectors



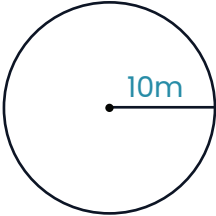
- Lesson 3.4 Area of a circle
- Lesson 3.5 Area of a semi-circle
- Lesson 3.6 Area of a sector

Determine the area of the following circles.

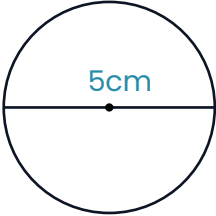
1)



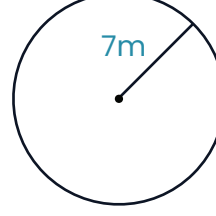
2)



3)

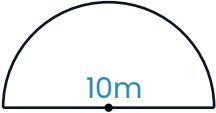


4)

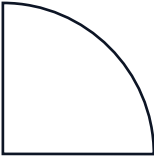


Determine the aea of the shapes below.

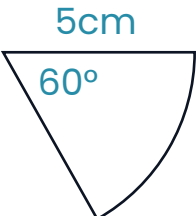
5



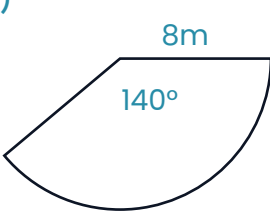
6)



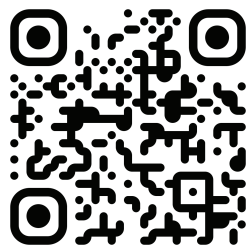
7)



8)



Area / circumference of circles: Working backwards



- Lesson 3.7 Working backwards
- Lesson 3.8 Using area to find circumference
- Lesson 3.9 Using circumference to find area

Determine the radius of the following circles. Round answers to 2 decimal places.

1)

Circumference = 10cm

2)

Circumference = 350m

3)

Area = 50cm²

4)

Area = 620m²

Find the circumference of the cricles below. Round answers to 2 decimal places.

5

Area = 120cm²

6)

Area = 980m²

Find the area of the circles below. Round answers to 2 decimal places.

7)

Circumference = 200cm

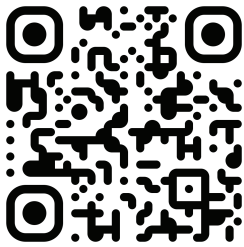
8)

Circumference = 70m

GR
8

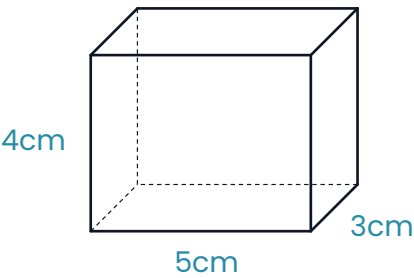
SURFACE AREA

Cuboids



Lesson 5.1 Surface area of a cuboid

1)



front & back



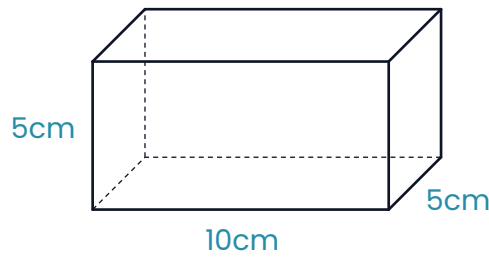
right & left



top & bottom



2)



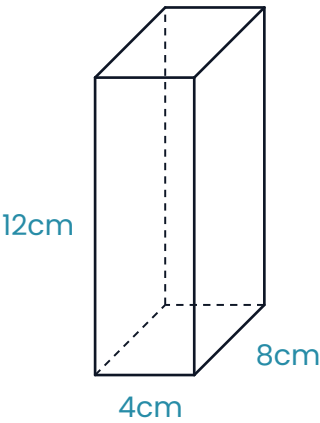
front & back & top & bottom



left & right



3)



1)



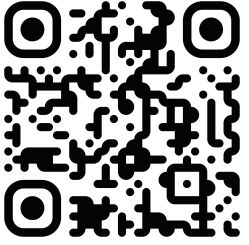
2)



3)



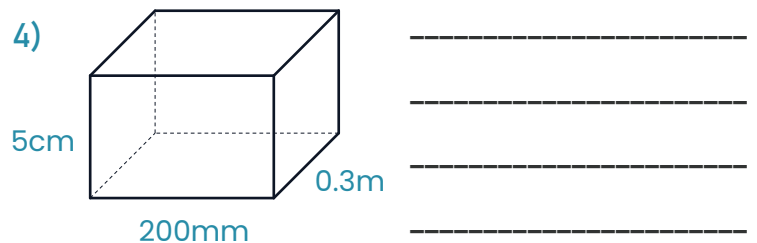
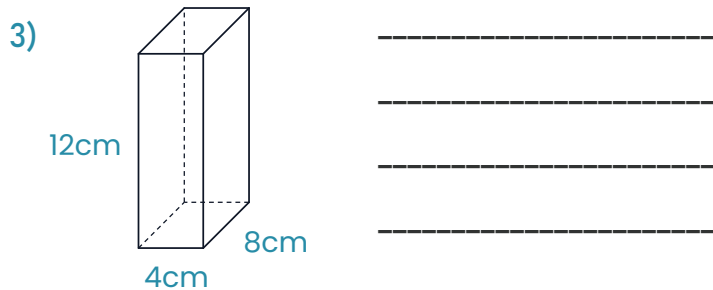
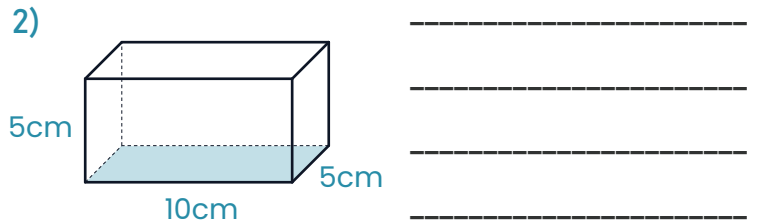
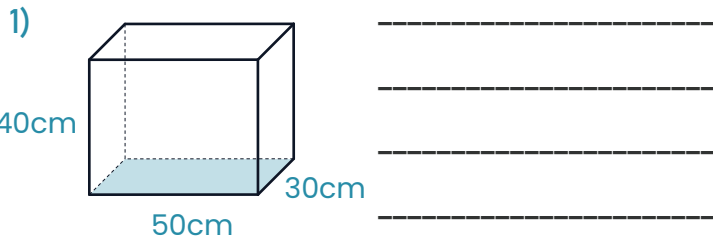
Cuboids



Lesson 6.1 Volume of a cuboid

Lesson 6.2 Capacity conversions

Determine the volume of the cuboids and write the amount of water they could hold in liters.



Convert the following volumes and capacities.

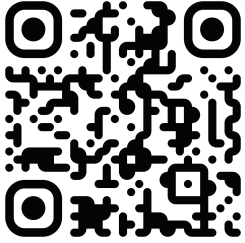
- 1) 5 cm^3 to mm^3 _____
- 2) 8 cm^3 to mm^3 _____
- 3) 4000 cm^3 to m^3 _____
- 4) $7\,000 \text{ mm}^3$ to cm^3 _____
- 5) 0.6 m^3 to cm^3 _____
- 6) 0.025 m^3 to cm^3 _____
- 7) $12\,500 \text{ cm}^3$ to m^3 _____
- 8) $450\,000 \text{ mm}^3$ to cm^3 _____
- 9) 0.008 cm^3 to mm^3 _____

- 10) 4 L to ml _____
- 11) 7 L to ml _____
- 12) 3 000 ml to L _____
- 13) 8 kl to L _____
- 14) 2.5 L to ml _____
- 15) 0.75 kl to L _____
- 16) 2.5 m^3 to L _____
- 17) 0.075 m^3 to ml _____
- 18) 0.0085 kl to cm^3 _____

GR
8

VOLUME & CAPACITY

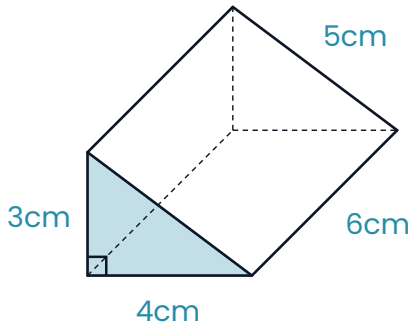
Triangular Prisms



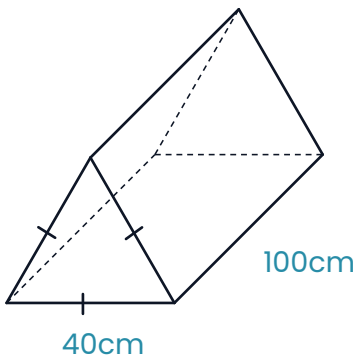
Lesson 6.3 Volume of a triangular prism

Determine the volume of the prisms and write the amount of water they could hold in liters.

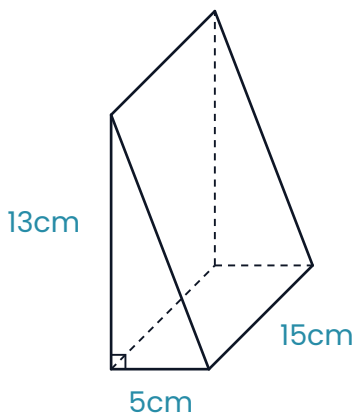
1)

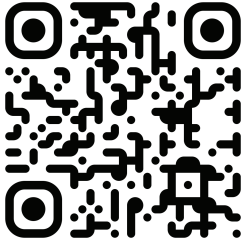


2)



3)



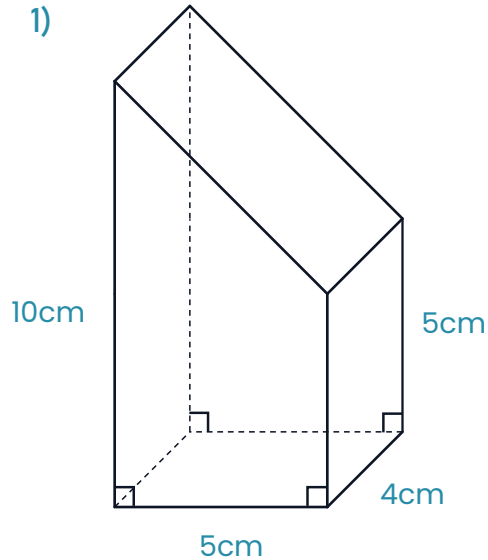


Lesson 7.1 Volume of 3D shapes

Lesson 7.2 Surface Area of 3D shapes

Determine the surface area and volume of the 3D shapes below. Round answers to 2 decimal places.

1)

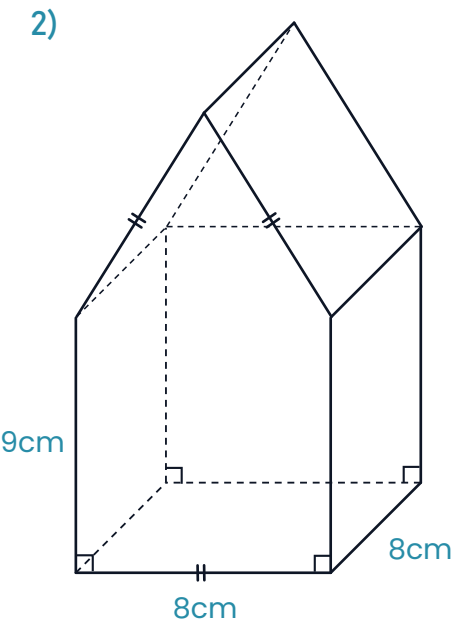


Volume

Surface Area

[illegible][illegible]

2)

[illegible]This image shows a blank sheet of primary-ruled paper. It contains ten horizontal rows, each designed for handwriting practice. Each row is defined by three parallel dashed lines: a solid top line, a dashed middle line, and a solid bottom line. The rows are evenly spaced across the page.