Year 9 Class 20 questions

Q1

Find the area of the composite shape.

12 cm

1

10 cm

17 cm

2

5 cm

Area 1 = [   ] cm²

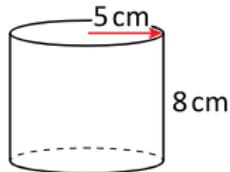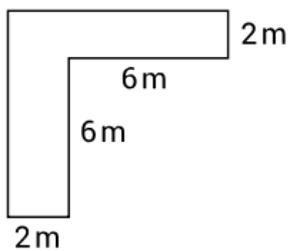Area 2 = [   ] cm²

Total Area = [   ] cm²
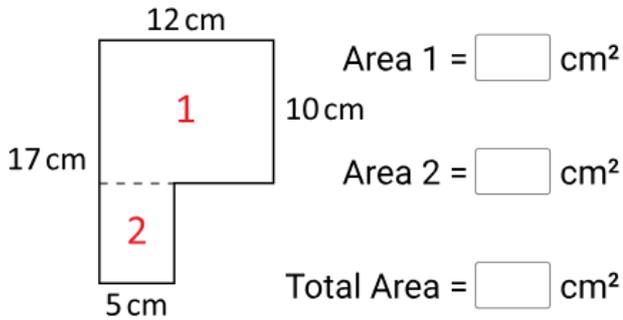
Q2

How many cubic centimetres in a cubic metre?

[   ]

Q3

Find the surface area of this cylinder.

[   ] cm² (1 d.p.)

5 cm

8 cm

Q4

2 m

6 m

6 m

2 m

Area = [   ] m²

Q5

Find the area.

6 m

11 m

4 m

13 m
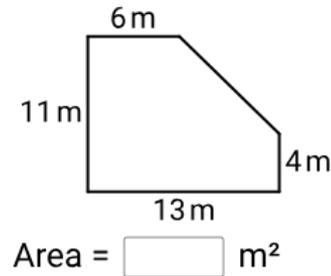
Area = [   ] m²

Q6

Complete the area conversion.

4.5 cm² = [   ] mm²

Q7

Complete the area conversion.

890 mm² = [   ] cm²

Q8
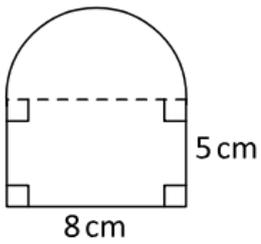
Find the surface area of this cylinder.
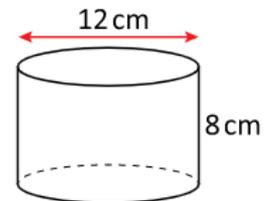
[   ] cm² (1 d.p.)

12 cm

8 cm

Q9

Find the surface area of this cylinder.

[   ] cm² (1 d.p.)

14 cm

9 cm

Q10

5 cm

8 cm

Area = [　　　] cm² (1 d.p.)

Q11

18 cm

10 cm

12 cm

Area = [　　　] cm² (1 d.p.)

Q12

12 m

20 m

16 m
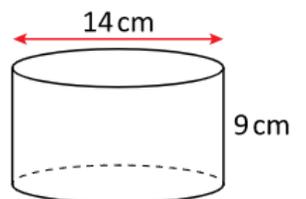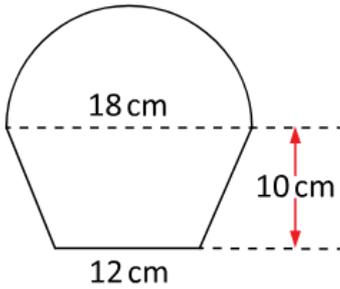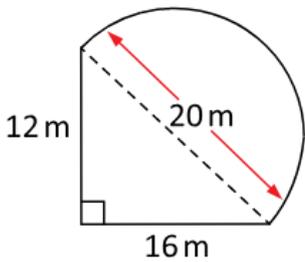
Area = [　　　] m² (1 d.p.)

Q13

Complete the volume conversion.

0.03 m³ = [　　　] cm³
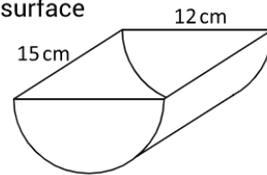
Q14

Complete the volume conversion.

5200 mm³ = [　　　] cm³

Q15
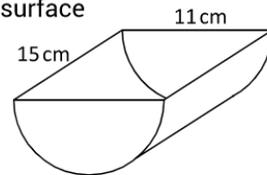
Complete the volume conversion.

350 mm³ = [　　　] cm³

Q16

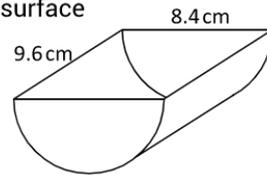Find the exterior surface area of this *open* half-cylinder.

12 cm

15 cm

[　　　] cm² (1 d.p.)

Q17

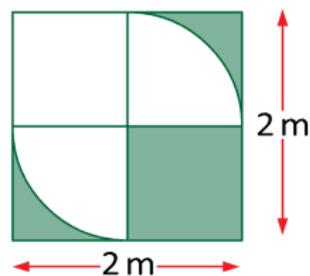Find the exterior surface area of this *open* half-cylinder.

11 cm

15 cm

[　　　] cm² (1 d.p.)

Q18

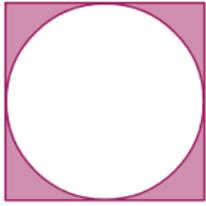Find the exterior surface area of this *open* half-cylinder.

8.4 cm

9.6 cm

[　　　] cm² (1 d.p.)

Q19

Find the shaded area.

2 m

2 m

Area = [　　　] m² (1 d.p.)

Q20

Find the shaded area.

12 m

Area = [____] m² (1 d.p.)

Q21

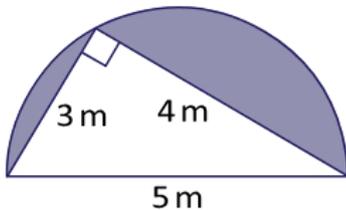Find the shaded area.
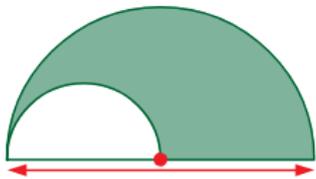
12 m

Area = [____] m² (1 d.p.)

Q22

Find the shaded area.

3 m   4 m

5 m

Area = [____] m² (1 d.p.)

Q23

A hectare is defined as a square area 100 m by 100 m.

(a) Find the number of square metres in a hectare.

[____] m²

(b) Jen owns a rectangular block of land that is 720 m by 300 m. Calculate the area of this block in hectares.

[____] ha

Q24

A rectangular room measures 3300 mm by 1250 mm and is 2.4 m from floor to ceiling. Calculate the volume of air the room contains in cubic metres.

[____] m³

Q25

A rectangular room measures 8500 mm by 4250 mm and is 2.4 m from floor to ceiling. Calculate the volume of air the room contains in cubic metres.

[____] m³

Q26

A straight concrete path is planned to be 15 m long, 900 mm wide and 120 mm thick.

(a) Calculate the volume of concrete required (in m³) to build the path.
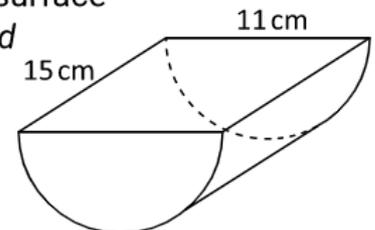
[____] m³

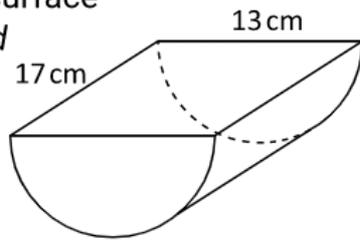(b) Find the cost to build the path if it costs $1350 per m³.

$ [____]

Q27

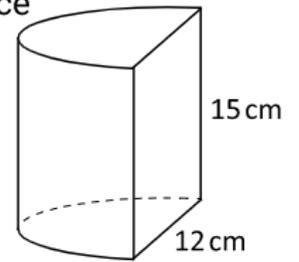Find the exterior surface area of this closed half-cylinder.

11 cm

15 cm

[____] cm² (1 d.p.)

Q28

Find the exterior surface area of this *closed* half-cylinder.

13 cm

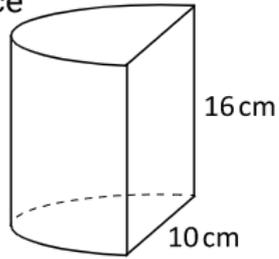17 cm

[ ] cm² (1 d.p.)

Q30

Find the exterior surface area of this *closed* half-cylinder.

15 cm

12 cm

[ ] cm² (1 d.p.)

Q29

Find the exterior surface area of this *closed* half-cylinder.

16 cm

10 cm

[ ] cm² (1 d.p.)