



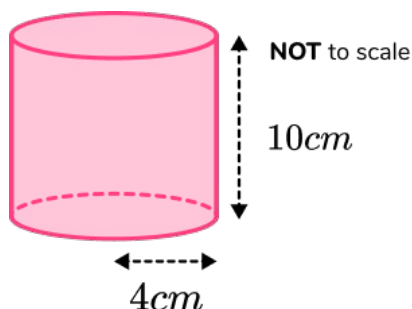
THIRD SPACE
LEARNING

GCSE Exam Questions

Surface Area of Cylinders |
Geometry & Measure

GCSE Exam Questions: Surface Area of Cylinders

- 1) Here is a cylinder.

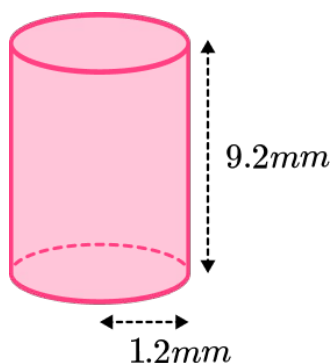


Calculate the surface area of the cylinder.

Leave your answer in terms of π .

..... cm^2
(3 marks)

- 2) Here is a cylinder.



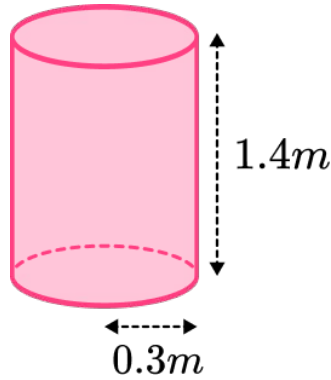
Calculate the total surface area of the cylinder.

Give your answer to 3 significant figures

..... mm^2
(3 marks)

GCSE Exam Questions: Surface Area of Cylinders

- 3) Penny has to cover the outside of 9 jars completely with paint.
Each jar is the shape of a cylinder with no top and a bottom.
The jar has a radius of $0.3m$ and a height of $1.4m$.



Penny has 10 cans of paint.

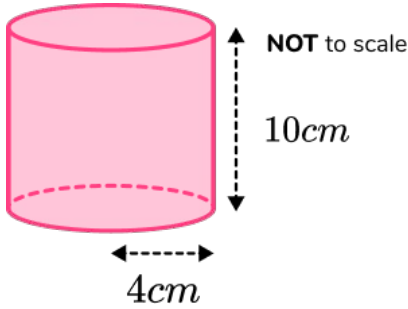
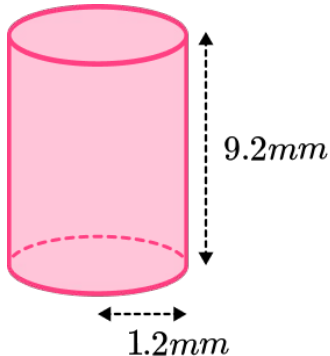
Each can of paint covers $4m^2$.

Does Penny have enough paint to cover the jars?

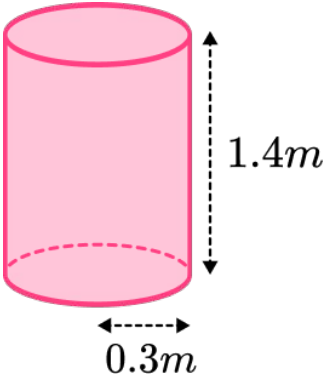
You must show how you get your answer.

(5 marks)

GCSE Exam Questions: Surface Area of Cylinders Answers

	Question	Answer	Marks
1)	Here is a cylinder. Calculate the surface area of the cylinder. Leave your answer in terms of π. 	$SA = 2\pi r^2 + 2\pi rh$ $SA = 2\pi(4)^2 + 2\pi(4)(10)$ $SA = 112\pi cm^2$	(1) (1) (1)
2)	Here is a cylinder. Calculate the total surface area of the cylinder. Give your answer to 3 significant figures 	$SA = 2\pi r^2 + 2\pi rh$ $SA = 2\pi(1.2)^2 + 2\pi(1.2)(9.2)$ $SA = 78.4mm^2$	(1) (1) (1)

GCSE Exam Questions: Surface Area of Cylinders Answers

	Question	Answer	Marks
3)	Penny has to cover the outside of 9 jars completely with paint. Each jar is the shape of a cylinder with no top and a bottom. The jar has a radius of $0.3m$ and a height of $1.4m$. Penny has 10 cans of paint. Each can of paint covers $4m^2$. Does Penny have enough paint to cover the jars? You must show how you get your answer. 	$SA = \pi r^2 + 2\pi rh$ $SA = \pi(0.3)^2 + 2\pi(0.3)(1.4)$ $SA \approx 2.9217m^2$ $2.9217m^2 \times 9 = 26.2953...m^2$ The total surface area of 9 jars is $26.30m^2$. She has enough paint to cover a surface area of $10 \times 4m^2 = 40m^2$ so therefore she has enough paint to cover the jars.	(1) (1) (1) (1) (1)

Where to go next?

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