$$LA = 2\pi rh = 2 \times \pi \times 2 \times 1 = 12.6 \text{ mm}^2$$

4 mm $r = 4 \div 2 = 2$

1 mm h

Find the lateral area of the cylinder in the image.
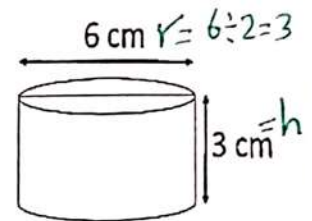Give your answer to the nearest tenth.

○ **12.6 mm²**   ○ 6.3 mm²   ○ 13.8 mm²   ○ 25.2 mm²

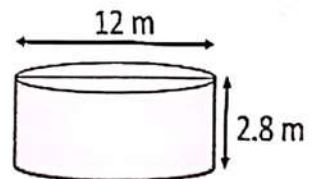**Find the lateral area of the cylinder in the image.**
Give your answer to the nearest tenth.

6 cm $r = 6 \div 2 = 3$

$$LA = 2\pi rh = 2 \times \pi \times 3 \times 3$$
$$= 56.5 \text{ cm}^2$$

3 cm $= h$

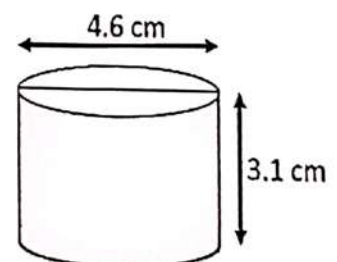○ **56.5 cm²**   ○ 28.3 cm²   ○ 62.9 cm²   ○ 113.1 cm²

12 m

2.8 m

Find the lateral area of the cylinder in the image.
Give your answer to the nearest tenth.

○ 211.1 m²   ○ 110.3 m²   ○ 52.8 m²   ○ **105.6 m²**

4.6 cm

3.1 cm

Find the lateral area of the cylinder in the image.
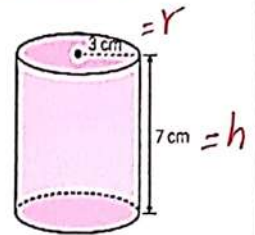Give your answer to the nearest tenth.

○ 89.6 cm²   ○ 12.3 cm²   ○ 22.4 cm²   ○ **44.8 cm²**

Find the **lateral area** of the cylinder in the image.
Give your answer to the nearest tenth.

$$L \cdot A = 2\pi r h$$

$$= 2 \times \pi \times 3 \times 7 = 131.9 \ cm^2$$

3 cm $= r$

7 cm $= h$

○ $18.8 \ cm^2$ ⊘ $131.9 \ cm^2$ ○ $44.0 \ cm^2$ ○ $123.9 \ cm^2$

A two-dimensional representation of a three-dimensional figure is called the [_____] of the figure.
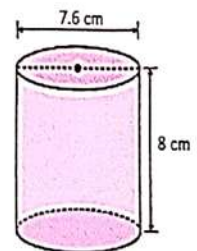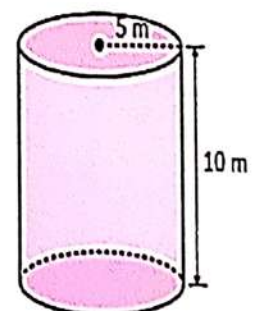
volume   lateral area   (net)   surface area

Find the **lateral area** of the cylinder in the image.
Give your answer in the nearest tenth.

7.6 cm

8 cm

○ 191.0 cm²   ○ 382.0 cm²   ○ 123.4 cm²   ○ 60.8 cm²

The **lateral area** of the cylinder in the image is Select... ∨ m², to the nearest
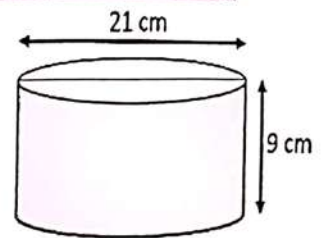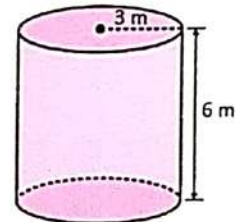
tenth.

314.2

5 m

10 m

21 cm

9 cm

Find the **lateral area** of the cylinder in the image.
Give your answer in the nearest tenth.

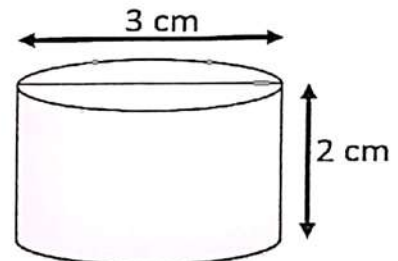○ 623.4 cm²   ○ 1,187.5 cm²   ○ 296.9 cm²   ○ 593.8 cm²

Find the **lateral area** of the cylinder in the image.
Give your answer in the nearest tenth.

3 m

6 m

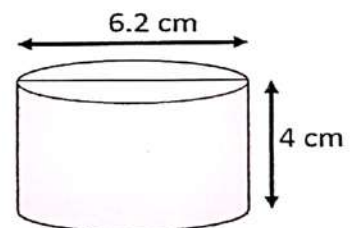○ 226.2 m²   ○ 56.5 m²   ○ 37.7 m²   ○ 113.1 m²

Look at the cylinder in this image.
The diameter is 3 centimeters and the height is 2 centimeters.

3 cm

2 cm

The **lateral area** of the cylinder is Select... ⌄ cm², to the nearest

tenth.   18.8

Find the **lateral area** of the cylinder in the image.
Give your answer to the nearest tenth.

6.2 cm

4 cm

○ 12.5 cm²   ○ 77.9 cm²   ○ 39.0 cm²   ○ 155.8 cm²

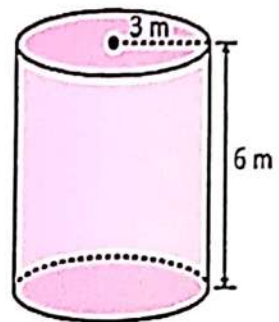$r = 3 \, m$ $h = 6 \, m$

This cylinder has a radius of 3 meters and a height of 6 meters.

3 m

6 m

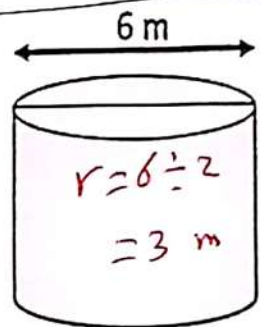The total surface area of the cylinder is   Select... ⌄   m², to the nearest tenth.

$SA = \boxed{2 \pi r h} + \boxed{2 \pi r^2}$

$= 2 \times \pi \times 3 \times 6 + 2 \times \pi \times 3^2 = \boxed{169.6} \, m^2$

6 m

$LA = 66.0$

The lateral area of this cylinder is given as 66.0 m².

$SA = \boxed{LA} + \boxed{2 \pi r^2} = 66 + 2 \times \pi \times 3^2 = \boxed{122.5} \, m^2$

$r = 6 \div 2$

$= 3 \, m$

The **surface area** of the cylinder is   Select... ⌄   m², to the nearest tenth.

6 m

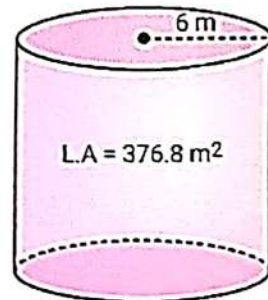Find the surface area of the cylinder in the image, if the lateral area of the cylinder is given as $376.8 \, m^2$.

L.A = 376.8 m2

Give your answer to the nearest tenth.

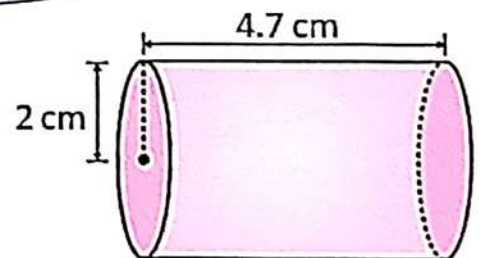○ $613.1 \, m^2$ ○ $601.9 \, m^2$ ○ $603.0 \, m^2$ ○ $360.0 \, m^2$

4.7 cm

2 cm

The radius of this cylinder is 2 centimeters. The length of the cylinder is 4.7 centimeters.

Find the **surface area** of the cylinder, to the nearest tenth.
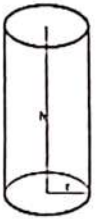
○ 64.9 cm²   ○ 59.1 cm²   ○ 25.1 cm²   ○ 84.2 cm²

Complete the formula for the surface area of a cylinder, by typing in the mathematical symbols and numbers.
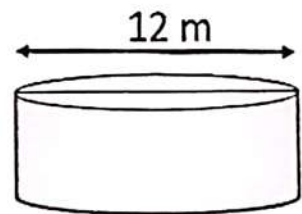
Surface Area of a Cylinder = Lateral Area + $2 \pi r^2$

__ or __

Surface Area of a Cylinder = $2 \pi r h$ $+ 2\pi r^2$, where r is the radius and h is the height.
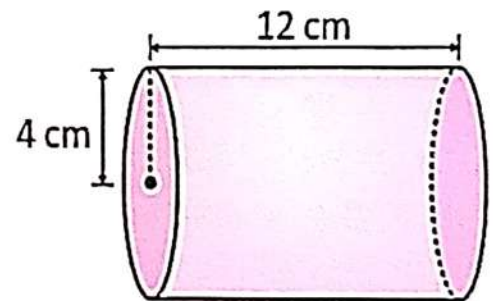
The lateral area of this cylinder is given as $113.1\ m^2$.

$33\ 9.3$

The **surface area** of the cylinder is Select... ▾ m^2, to the nearest tenth.

12 m

The radius of this cylinder is 4 centimeters. The length of the cylinder is 12 centimeters.

12 cm

4 cm

Find the **surface area** of the cylinder, to the nearest tenth.

○ **402.1 cm²**   ○ 351.9 cm²   ○ 804.2 cm²   ○ 760.3 cm²

The surface area of a Select... ▾ is the area of the curved surface plus the area of both the circular
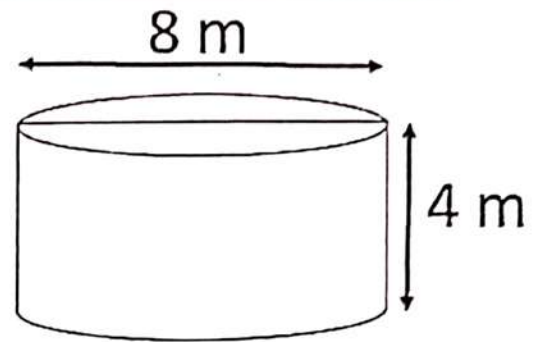
cylinder

bases.

Find the **surface area** of the cylinder in the image.

Give your answer to the nearest tenth.

8 m

4 m

○ 603.2 m^2 ○ 301.6 m^2 ○ 201.1 m^2 ○ 402.1 m^2

This cylinder has a diameter of 10 centimeters and a length of 10 centimeters.

Find the **surface area** of the cylinder.

Give your answer to the nearest tenth.

10 cm

10 cm

○ 942.5 cm^2 ○ 1,256.6 cm^2 ○ 471.2 cm^2 ○ 372.9 cm^2

Find the surface area of the cylinder in the image, if the lateral area of the cylinder is given as $251.2 \ m^2$.

Give your answer to the nearest tenth.

5 m

LA = 251.2 m2

○ $804.3 \ m^2$ ○ $488.9 \ m^2$ ○ $408.3 \ m^2$ ○ $418.3 \ m^2$

This can of sweetcorn is in the shape of a cylinder.

The radius of the can is 5 centimeters and the height is 12 centimeters.

$r = 5$ $h = 12$

The paper label covers the curved surface.

Find the area of the label. Then find the total surface area.

المساحة الجانبية

What **percent** of the can of sweetcorn is covered with the label?

$LA = 2\pi r h = 2 \times \pi \times 5 \times 12 = 377$

$$SA = \underset{377}{2\pi r h} + 2\pi r^2$$

$= 2 \times \pi \times 5 \times 12 + 2 \times \pi \times 5^2$

≈ 534

$Percent = \dfrac{377}{534} \times 100 = 70.6\%$

- ○ 100 %
- ○ 29.4 %
- ⊙ 70.6 %
- ○ 41.2 %

A soup can is in the shape of a cylinder.

The radius of the can is 4 centimeters and the height is 7 centimeters.

What is the **lateral surface area** of the can, to the nearest tenth?

- ○ $180.8 \ cm^2$
- ⊙ $175.9 \ cm^2$
- ○ $136.56 \ cm^2$
- ○ $106 \ cm^2$
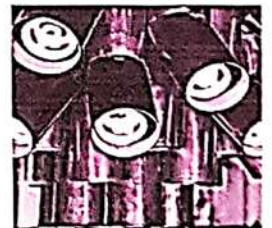
This light fitting is made up of many metal cylinders.
The radius of each cylinder is 4 centimeters and the length of each cylinder is 20 centimeters.

Calculate the area of metal needed for each cylinder, to the nearest tenth.

There are 30 metal tubes in total, so the total area of metal to make the light fitting is:

$30 \times \boxed{502.7} = \boxed{15\ 081}$

(Each cylinder has no metal bases.)

| 502.7 cm² | 16.8 cm² | 15,081 cm² | 251.3 cm² | 7,539 cm² | 3,015 cm² | 100.5 cm² |

This soup can is in the shape of a cylinder.
The radius of the soup can is 6 centimeters and the height is 20 centimeters.

The paper label covers the curved surface.
Find the area of the label. Then find the total surface area.

What **percent** of the soup can is covered with the label?
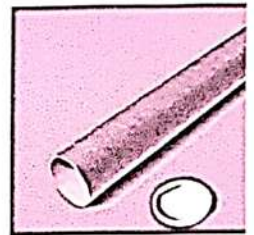
○ 100 %   ○ 76.9 %   ○ 75.0 %   ○ 23.1 %

The image shows a cardboard tube for protecting documents, like drawings or certificates.
The plastic caps have been removed.
The diameter of the tube is 9 centimeters, and the length of the tube is 45 centimeters.

$d = 9 \rightarrow r = 4.5$ $h = 45$

The area of the cardboard in the tube, to the nearest tenth, is ⬚ cm².

(Drag the correct answer.) $LA = 2\pi r h = 2 \times \pi \times 4.5 \times 45 = 1272.3$
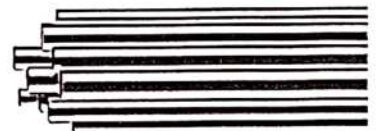
127.2   1,399.5   2,544.7   1,272.3

Each of these steel rods is in the shape of a cylinder.
The length of a steel rod is 50 centimeters.
The diameter of each rod is 2 centimeters.

The surface area of one rod is ⬚ cm², to the nearest tenth.

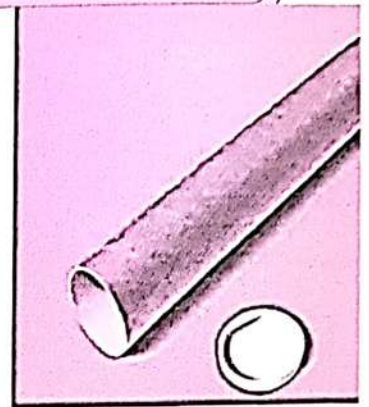✛ 6.3   ✛ 320.4   ✛ 314.2   ✛ 653.5

The image shows a cardboard tube for protecting documents, like drawings or certificates.
The plastic caps have been removed.
The diameter of the tube is 8 centimeters, and the length of the tube is 40 centimeters.

Calculate the area of the cardboard in the tube.
Give your answer to the nearest tenth.

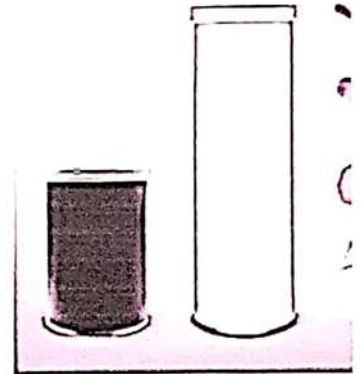○ 1,105.8 cm²   ○ 100.5 cm²   ○ 2,010.6 cm²   ○ 1,005.3 cm²

The tube of potato chips with the black label has a radius of 5 centimeters, and a height of 12
centimeters.
Find the area of the black label around the tube.
(The label does not overlap.)

Give your answer to the nearest tenth.

$LA = 2\pi r h$
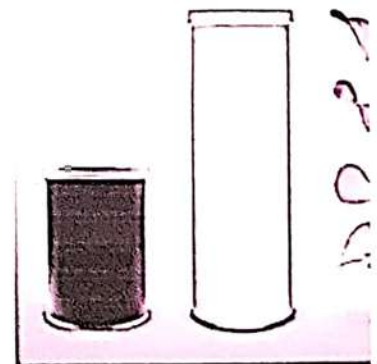$= 2 \times \pi \times 5 \times 12$
$= 377 \ cm^2$

○ 157.1 cm²   ○ 534.1 cm²   ○ 377.0 cm²   ○ 361.9 cm²

The tube of potato chips with the white label has a radius of 5 centimeters, and a height of 24
centimeters.
Find the area of the white label around the tube.
(The label does not overlap.)

Give your answer to the nearest tenth.

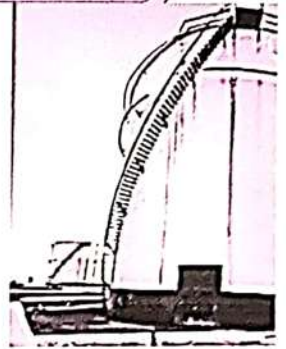○ 911.1 cm²   ○ 377.0 cm²   ○ 157.1 cm²   ○ 754.0 cm²

This oil tank has a radius of 4 meters and a height of 12 meters.
Calculate the **lateral area** of the oil tank.

Give your answer to the nearest tenth.

○ 301.6 m²   ○ 1,206.4 m²   ○ 100.5 m²   ○ 203.4 m²

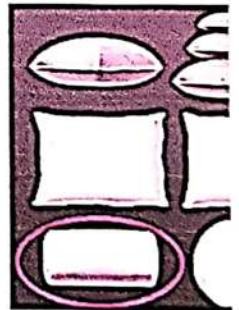This soup can has a diameter of 7 centimeters and a height of 10 centimeters.

296-9

The total surface area of the can is   Select... ▾   cm², to the nearest tenth.

Moza is making cushions in different shapes.
The one in the shape of a cylinder is marked in the picture.

If the length of the cushion is 60 centimeters, and the diameter is 20 centimeters, calculate the total surface area of the cushion.

○ 3,832.7 cm²   ○ 4,398.2 cm²   ○ 3,770.0 cm²   ○ 628.3 cm²

You are opening a new coffee shop and the sign will be in the shape of a cylinder.

The diameter of the sign is 0.8 m and the width is 0.1 m. $h = 0.1$

$d = 0.8$ $r = 0.4$ 1.3

The total surface area of the sign is   Select... ▾   m², to the nearest tenth.

$$SA = 2\pi r h + 2\pi r^2 = 2 \times \pi \times 0.4 \times 0.1 + 2 \times \pi \times 0.4^2$$

$$\approx 1.3 \ m^2$$