Question 1: Work out the surface area of each of the following cylinders. Give each answer to 2 decimal places.

(a) ![Diagram](a)
(b) ![Diagram](b)
(c) ![Diagram](c)
(d) ![Diagram](d)
(e) ![Diagram](e)
(f) ![Diagram](f)

Question 2: Work out the surface area of each of the following cylinders. Leave your answers in terms of $\pi$.

(a) ![Diagram](a)
(b) ![Diagram](b)
(c) ![Diagram](c)

Question 3: Work out the height of each cylinder below.

(a) ![Diagram](a)
(b) ![Diagram](b)
(c) ![Diagram](c)
Question 4: Work out the height of each cylinder below

(a) \[ \text{Surface area} = 84\pi \text{ cm}^2 \]

(b) \[ \text{Surface area} = 900\pi \text{ cm}^2 \]

(c) \[ \text{Surface area} = 56\pi \text{ cm}^2 \]

Question 5: Work out the radius of each cylinder below

(a) \[ \text{Surface area} = 18\pi \text{ cm}^2 \]

(b) \[ \text{Surface area} = 36\pi \text{ cm}^2 \]

(c) \[ \text{Surface area} = 1040\pi \text{ cm}^2 \]

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**Apply**

Question 1: The cylinder and cube below have the same surface area.
Find the side length of the cube, \( x \).

Question 2: A can of baked beans has a paper label wrapped around the outside.
The can has a height of 11cm and radius of 4.5cm.
The label covers the entire height of the can.
The label has a 1cm overlap vertically so that it can be stuck together.
Calculate the area of the label.
Question 3: The cylinder below has a surface area of $972\pi$ cm$^2$. Find $x$.

Question 4: A cylinder has a height of 18 cm and volume of 1715 cm$^3$. Work out the surface area of the cylinder.

Question 5: A cylinder and a cone are joined together to make a solid. The cylinder has a radius of 9 cm and height of 13 cm. The cone has a slant height of 15 cm. Find the total surface area of the solid.

Question 6: Work out the surface area of the shape below.