

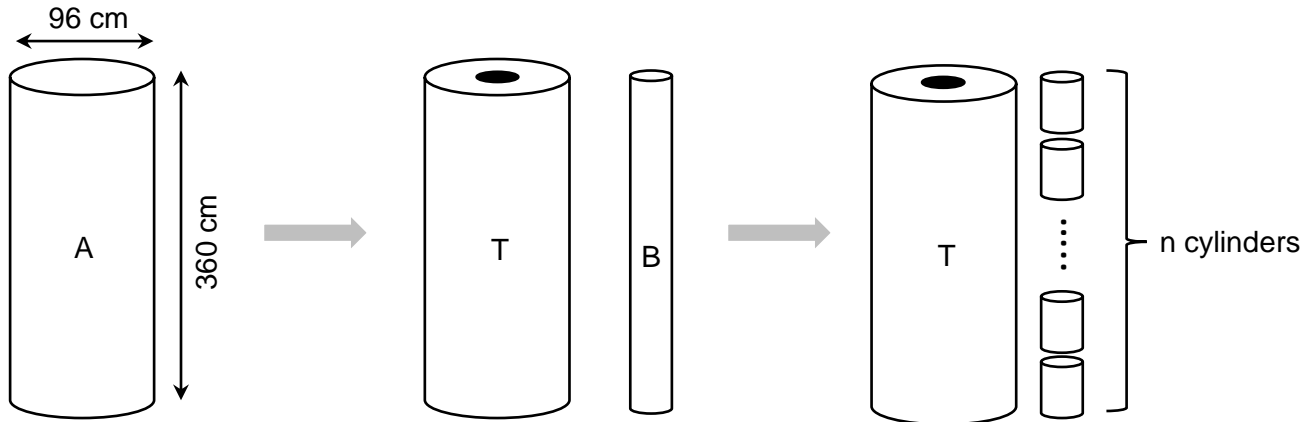
# Spicy Question #38



Cylinder (A) is shown below. The height of cylinder (A) is 360 cm, and the diameter is 96 cm.

A cylindrical hole is cut through the center of cylinder (A) leaving two solid shapes. These are a tube (T) and a new cylinder (B).

Cylinder B is then cut horizontally into  $n$  identical smaller cylinders. Each of the  $n$  smaller cylinders is similar to the original cylinder (A).



The total surface area of the tube and the  $n$  smaller cylinders equal to  $42232\pi$  cm<sup>2</sup>

Work out how many smaller cylinders there are.



**Calculator allowed**

**SUBMISSION DEADLINE 16/2/23 - 7PM**

Video  
Solution



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