

- 3 A hollow cylinder, which is open at both ends, has a radius of  $(3.0 \pm 0.1)\text{cm}$  and a length of  $(15.0 \pm 0.1)\text{cm}$ .

What is the value, with its absolute uncertainty, of the surface area of the cylinder?

A  $(280 \pm 10)\text{cm}^2$

B  $(282.7 \pm 0.2)\text{cm}^2$

C  $(420 \pm 30)\text{cm}^2$

D  $(424.1 \pm 0.3)\text{cm}^2$