A-SSE Radius of a Cylinder

Task

Given the height h and volume V of a certain cylinder, Jill uses the formula

$$r = \sqrt{\frac{V}{\pi h}}$$

to compute its radius to be 20 meters. If a second cylinder has the same volume as the first, but is 100 times taller, what is its radius?

a. 2 meters.

b. 200 meters.

c. 0.2 meters.

d. $2,000$ meters.

e. It is impossible to tell from the given information.