Volumes - Lesson 2

Volume of a Cylinder - Calculator
(given radius and height)

LI

- Calculate the Volume of a Cylinder.

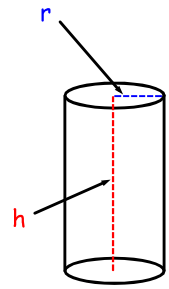
SC

- Cylinder formula.

Jan 10-12:11

Volume of a Cylinder

$$V = \pi r^2 h$$

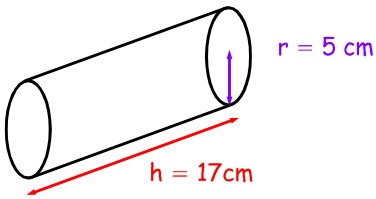


(r is radius of circle, h is height)

Remember, r^2 means r x r

$$V = \pi \times r \times r \times h$$

Example 1

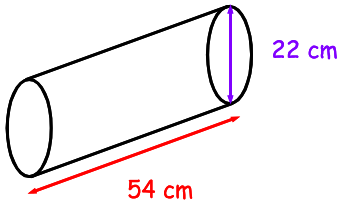


$$V = \pi \times r \times r \times h$$

$$V = \pi \times 5 \times 5 \times 17$$

$$V = 1\,335.18 \text{ cm}^3$$

Example 2



get radius first

$r = 22 \div 2 = 11$

$$V = \pi \times r \times r \times h$$

$$V = \pi \times 11 \times 11 \times 54$$

$$V = 20\,527.17 \text{ cm}^3$$

Jun 18-08:10

Calculate the volumes of these cylinders (2 decimal places) :

1) r = 8 cm, h = 4 cm

2) D = 16 cm, h = 10 cm

3) r = 19 cm, h = 11 cm

4) D = 21 cm, h = 13 cm

5) r = 38 cm, h = 56 cm

6) D = 67 cm, h = 67 cm

7) r = 50 cm, h = 100 cm

8) D = 200 cm, h = 101 cm

9) r = 8.5 cm, h = 4.7 cm

10) D = 9.9 cm, h = 8.5 cm

11) r = 0.5 cm, h = 2.5 cm

12) D = 20.1 cm, h = 1.5 cm

13) r = 1.1 cm, h = 2.2 cm

14) D = 11.1 m, h = 3.2 m

15) r = 1.01 mm, h = 1.1 mm

16) D = h = 200 mm

Answers

1) 804 . 25 cm^3
2) 2 010 . 62 cm^3
3) 12 475 . 26 cm^3
4) 4 502 . 69 cm^3
5) 254 041 . 75 cm^3
6) 236 218 . 71 cm^3
7) 785 398 . 16 cm^3
8) 3 173 008 . 58 cm^3
9) 1 066 . 81 cm^3
10) 654 . 30 cm^3
11) 1 . 96 cm^3
12) 475 . 96 cm^3
13) 8 . 36 cm^3
14) 309 . 66 m^3
15) 3 . 53 mm^3
16) 6 283 185 . 31 mm^3