

Summer Geometry Semester 2 Unit 4 3d solids

Lesson 031 | Geometry | Volume and surface area

<https://www.youtube.com/watch?v=X4jkGPmOAgM>

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

A right circular cylinder has radius 6 and height 45. Find lateral area, total surface area, and volume.

02

A right circular cylinder has radius 7 and height 60. Find lateral area, total surface area, and volume.

03

A right circular cylinder has radius 6 and height 21. Find lateral area, total surface area, and volume.

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04

A right circular cylinder has radius 7 and height 35. Find lateral area, total surface area, and volume.

05

A right circular cylinder has radius 10 and height 18. Find lateral area, total surface area, and volume.

06

A right circular cylinder has radius 11 and height 35. Find lateral area, total surface area, and volume.

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01

A right circular cylinder has radius 6 and height 45. Find lateral area, total surface area, and volume.

Lateral area $2\pi rh = 540\pi$. Total area $2\pi rh + 2\pi r^2 = 612\pi$. Volume $\pi r^2 h = 1620\pi$. Use square units for areas and cubic units for volume.

02

A right circular cylinder has radius 7 and height 60. Find lateral area, total surface area, and volume.

Lateral area $2\pi rh = 840\pi$. Total area $2\pi rh + 2\pi r^2 = 938\pi$. Volume $\pi r^2 h = 2940\pi$. Use square units for areas and cubic units for volume.

03

A right circular cylinder has radius 6 and height 21. Find lateral area, total surface area, and volume.

Lateral area $2\pi rh = 252\pi$. Total area $2\pi rh + 2\pi r^2 = 324\pi$. Volume $\pi r^2 h = 756\pi$. Use square units for areas and cubic units for volume.

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04

A right circular cylinder has radius 7 and height 35. Find lateral area, total surface area, and volume.

Lateral area $2\pi rh = 490\pi$. Total area $2\pi rh + 2\pi r^2 = 588\pi$. Volume $\pi r^2 h = 1715\pi$. Use square units for areas and cubic units for volume.

05

A right circular cylinder has radius 10 and height 18. Find lateral area, total surface area, and volume.

Lateral area $2\pi rh = 360\pi$. Total area $2\pi rh + 2\pi r^2 = 560\pi$. Volume $\pi r^2 h = 1800\pi$. Use square units for areas and cubic units for volume.

06

A right circular cylinder has radius 11 and height 35. Find lateral area, total surface area, and volume.

Lateral area $2\pi rh = 770\pi$. Total area $2\pi rh + 2\pi r^2 = 1012\pi$. Volume $\pi r^2 h = 4235\pi$. Use square units for areas and cubic units for volume.