

2021 Geometry Must Know Formulas of Surface Area and Lateral Area of a Cylinder, Con...

Lesson 063 | Geometry | Cone lateral and surface area

<https://www.youtube.com/watch?v=aTjnL4cQgj0>

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

A right cone has radius 2 and height 8. Find slant height, lateral area, and total surface area.

02

A right cone has radius 10 and height 6. Find slant height, lateral area, and total surface area.

03

A right cone has radius 4 and height 9. Find slant height, lateral area, and total surface area.

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04

A right cone has radius 3 and height 8. Find slant height, lateral area, and total surface area.

05

A right cone has radius 2 and height 7. Find slant height, lateral area, and total surface area.

06

A right cone has radius 8 and height 4. Find slant height, lateral area, and total surface area.

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01

A right cone has radius 2 and height 8. Find slant height, lateral area, and total surface area.

Slant height $l = \sqrt{4+64} = \sqrt{68}$. Lateral area $\pi rl = 2\pi\sqrt{68}$. Total area $= 2\pi\sqrt{68} + 4\pi$.

02

A right cone has radius 10 and height 6. Find slant height, lateral area, and total surface area.

Slant height $l = \sqrt{100+36} = \sqrt{136}$. Lateral area $\pi rl = 10\pi\sqrt{136}$. Total area $= 10\pi\sqrt{136} + 100\pi$.

03

A right cone has radius 4 and height 9. Find slant height, lateral area, and total surface area.

Slant height $l = \sqrt{16+81} = \sqrt{97}$. Lateral area $\pi rl = 4\pi\sqrt{97}$. Total area $= 4\pi\sqrt{97} + 16\pi$.

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04

A right cone has radius 3 and height 8. Find slant height, lateral area, and total surface area.

Slant height $l = \sqrt{9+64} = \sqrt{73}$. Lateral area $\pi rl = 3\pi\sqrt{73}$. Total area $= 3\pi\sqrt{73} + 9\pi$.

05

A right cone has radius 2 and height 7. Find slant height, lateral area, and total surface area.

Slant height $l = \sqrt{4+49} = \sqrt{53}$. Lateral area $\pi rl = 2\pi\sqrt{53}$. Total area $= 2\pi\sqrt{53} + 4\pi$.

06

A right cone has radius 8 and height 4. Find slant height, lateral area, and total surface area.

Slant height $l = \sqrt{64+16} = \sqrt{80}$. Lateral area $\pi rl = 8\pi\sqrt{80}$. Total area $= 8\pi\sqrt{80} + 64\pi$.