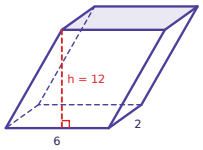
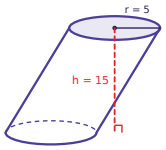
Cavalieri's Principle & Oblique Solids · 1

An oblique prism has a 6 by 2 rectangular base and a height of 12. Find its volume.



Cavalieri's Principle & Oblique Solids · 2

An oblique cylinder has radius 5 and height 15. Find its volume in terms of π.

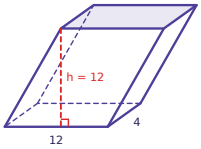


Cavalieri's Principle & Oblique Solids · 3

A right prism has a 9 by 9 square base and height 8. An oblique prism has the same base and height 9. Do they have the same volume?

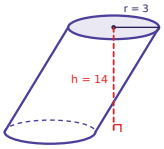
Cavalieri's Principle & Oblique Solids · 4

An oblique prism has a 12 by 4 rectangular base and a height of 12. Find its volume.



Cavalieri's Principle & Oblique Solids · 5

An oblique cylinder has radius 3 and height 14. Find its volume in terms of π.



Cavalieri's Principle & Oblique Solids · 6

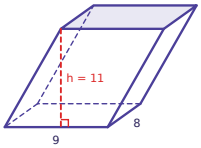
15 square tiles, each 11 cm by 11 cm and 1 cm thick, are stacked and then pushed into a leaning stack. Find the volume of the leaning stack in cubic centimeters.

Cavalieri's Principle & Oblique Solids · 7

A right prism has a 9 by 9 square base and height 12. An oblique prism has the same base and height 15. Do they have the same volume?

Cavalieri's Principle & Oblique Solids · 8

An oblique prism has a 9 by 8 rectangular base and a height of 11. Find its volume.



Cavalieri's Principle & Oblique Solids · 2

ANSWER

375π

Cavalieri's Principle & Oblique Solids · 1

ANSWER

144

Cavalieri's Principle & Oblique Solids · 4

ANSWER

576

Cavalieri's Principle & Oblique Solids · 3

ANSWER

no

Cavalieri's Principle & Oblique Solids · 6

ANSWER

1815

Cavalieri's Principle & Oblique Solids · 5

ANSWER

126π

Cavalieri's Principle & Oblique Solids · 8

ANSWER

792

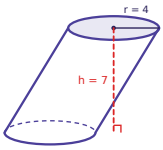
Cavalieri's Principle & Oblique Solids · 7

ANSWER

no

Cavalieri's Principle & Oblique Solids · 9

An oblique cylinder has radius 4 and height 7. Find its volume in terms of π.

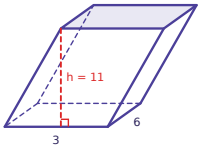


Cavalieri's Principle & Oblique Solids · 10

A right cylinder and an oblique cylinder both have radius 2 and height 9. Do they have the same volume?

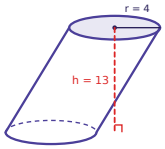
Cavalieri's Principle & Oblique Solids · 11

An oblique prism has a 3 by 6 rectangular base and a height of 11. Find its volume.



Cavalieri's Principle & Oblique Solids · 12

An oblique cylinder has radius 4 and height 13. Find its volume in terms of π.



Cavalieri's Principle & Oblique Solids · 13

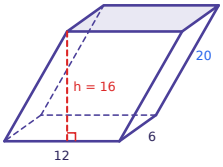
10 square tiles, each 15 cm by 15 cm and 1 cm thick, are stacked and then pushed into a leaning stack. Find the volume of the leaning stack in cubic centimeters.

Cavalieri's Principle & Oblique Solids · 14

A right prism has an 8 by 8 square base and height 6. An oblique prism has the same base and height 9. Do they have the same volume?

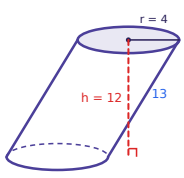
Cavalieri's Principle & Oblique Solids · 15

An oblique prism has a 12 by 6 rectangular base and a height of 16. Each slanted edge is 20 long. Find its volume.



Cavalieri's Principle & Oblique Solids · 16

An oblique cylinder has radius 4 and height 12. Its slanted side is 13 long. Find its volume in terms of π.



Cavalieri's Principle & Oblique Solids · 10

ANSWER

yes

Cavalieri's Principle & Oblique Solids · 9

ANSWER

112π

Cavalieri's Principle & Oblique Solids · 12

ANSWER

208π

Cavalieri's Principle & Oblique Solids · 11

ANSWER

198

Cavalieri's Principle & Oblique Solids · 14

ANSWER

no

Cavalieri's Principle & Oblique Solids · 13

ANSWER

2250

Cavalieri's Principle & Oblique Solids · 16

ANSWER

192π

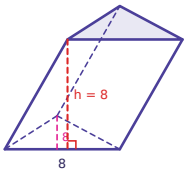
Cavalieri's Principle & Oblique Solids · 15

ANSWER

1152

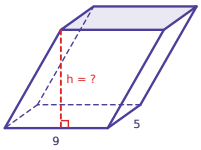
Cavalieri's Principle & Oblique Solids · 17

An oblique prism has a triangular base with base 8 and height 8. The height of the prism is 8. Find its volume.



Cavalieri's Principle & Oblique Solids · 18

An oblique prism with a 9 by 5 rectangular base has a volume of 405. Find its height.



Cavalieri's Principle & Oblique Solids · 19

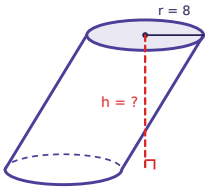
A right cylinder has radius 2 and height 7. An oblique cylinder has the same base and height 10. Do they have the same volume?

Cavalieri's Principle & Oblique Solids · 20

12 square tiles, each 11 cm by 11 cm and 1 cm thick, are stacked and then pushed into a leaning stack. Find the volume of the leaning stack in cubic centimeters.

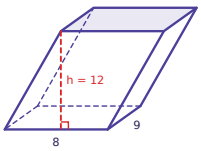
Cavalieri's Principle & Oblique Solids · 21

An oblique cylinder has radius 8 and volume 448π. Find its height.



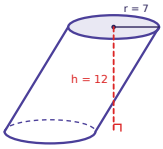
Cavalieri's Principle & Oblique Solids · 22

An oblique prism has an 8 by 9 rectangular base and a height of 12. Find its volume.



Cavalieri's Principle & Oblique Solids · 23

An oblique cylinder has radius 7 and height 12. Find its volume in terms of π.



Cavalieri's Principle & Oblique Solids · 24

A right cylinder has radius 9 and height 10. An oblique cylinder has the same base and a slanted side of length 10, leaning so its height is 8. Do they have the same volume?

Cavalieri's Principle & Oblique Solids · 18

ANSWER

9

Cavalieri's Principle & Oblique Solids · 17

ANSWER

256

Cavalieri's Principle & Oblique Solids · 20

ANSWER

1452

Cavalieri's Principle & Oblique Solids · 19

ANSWER

no

Cavalieri's Principle & Oblique Solids · 22

ANSWER

864

Cavalieri's Principle & Oblique Solids · 21

ANSWER

7

Cavalieri's Principle & Oblique Solids · 24

ANSWER

no

Cavalieri's Principle & Oblique Solids · 23

ANSWER

588π