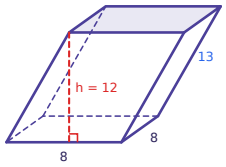
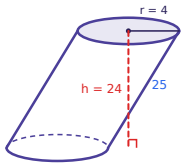
Cavalieri's Principle & Oblique Solids · 1

An oblique prism has an 8 by 8 rectangular base and a height of 12. Each slanted edge is 13 long. Find its volume.



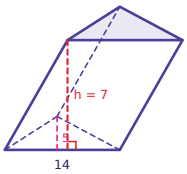
Cavalieri's Principle & Oblique Solids · 2

An oblique cylinder has radius 4 and height 24. Its slanted side is 25 long. Find its volume in terms of π.



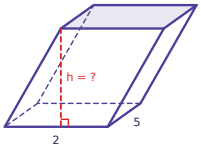
Cavalieri's Principle & Oblique Solids · 3

An oblique prism has a triangular base with base 14 and height 5. The height of the prism is 7. Find its volume.



Cavalieri's Principle & Oblique Solids · 4

An oblique prism with a 2 by 5 rectangular base has a volume of 30. Find its height.



Cavalieri's Principle & Oblique Solids · 5

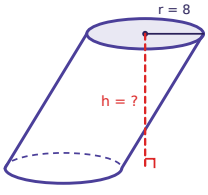
A right cylinder has radius 2 and height 8. An oblique cylinder has the same base and height 11. Do they have the same volume?

Cavalieri's Principle & Oblique Solids · 6

39 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.

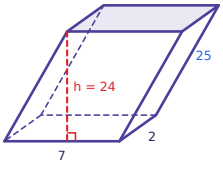
Cavalieri's Principle & Oblique Solids · 7

An oblique cylinder has radius 8 and volume 512π. Find its height.



Cavalieri's Principle & Oblique Solids · 8

An oblique prism has a 7 by 2 rectangular base and a height of 24. Each slanted edge is 25 long. Find its volume.



Cavalieri's Principle & Oblique Solids · 2

ANSWER

384π

Cavalieri's Principle & Oblique Solids · 1

ANSWER

768

Cavalieri's Principle & Oblique Solids · 4

ANSWER

3

Cavalieri's Principle & Oblique Solids · 3

ANSWER

245

Cavalieri's Principle & Oblique Solids · 6

ANSWER

4719

Cavalieri's Principle & Oblique Solids · 5

ANSWER

no

Cavalieri's Principle & Oblique Solids · 8

ANSWER

336

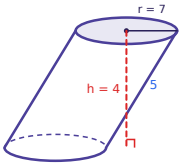
Cavalieri's Principle & Oblique Solids · 7

ANSWER

8

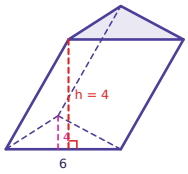
Cavalieri's Principle & Oblique Solids · 9

An oblique cylinder has radius 7 and height 4. Its slanted side is 5 long. Find its volume in terms of π.



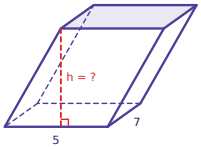
Cavalieri's Principle & Oblique Solids · 10

An oblique prism has a triangular base with base 6 and height 4. The height of the prism is 4. Find its volume.



Cavalieri's Principle & Oblique Solids · 11

An oblique prism with a 5 by 7 rectangular base has a volume of 350. Find its height.



Cavalieri's Principle & Oblique Solids · 12

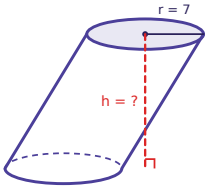
A right prism has a 5 by 5 square base and height 11. An oblique prism has the same base and height 15. Do they have the same volume?

Cavalieri's Principle & Oblique Solids · 13

32 square tiles, each 5 cm by 5 cm and 1 cm thick, are stacked and then pushed into a leaning stack. Find the volume of the leaning stack in cubic centimeters.

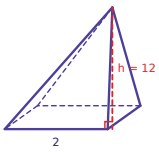
Cavalieri's Principle & Oblique Solids · 14

An oblique cylinder has radius 7 and volume 196π. Find its height.



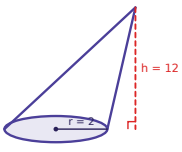
Cavalieri's Principle & Oblique Solids · 15

An oblique pyramid has a square base with side 2 and a height of 12. Find its volume.



Cavalieri's Principle & Oblique Solids · 16

An oblique cone has radius 2 and height 12. Find its volume in terms of π.



Cavalieri's Principle & Oblique Solids · 10

ANSWER

48

Cavalieri's Principle & Oblique Solids · 9

ANSWER

196π

Cavalieri's Principle & Oblique Solids · 12

ANSWER

no

Cavalieri's Principle & Oblique Solids · 11

ANSWER

10

Cavalieri's Principle & Oblique Solids · 14

ANSWER

4

Cavalieri's Principle & Oblique Solids · 13

ANSWER

800

Cavalieri's Principle & Oblique Solids · 16

ANSWER

16π

Cavalieri's Principle & Oblique Solids · 15

ANSWER

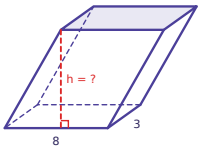
16

Cavalieri's Principle & Oblique Solids · 17

Solid A is a right prism with an 8 by 3 rectangular base and height 7. Solid B is an oblique prism with a 6 by 4 rectangular base and height 7. Do A and B have the same volume?

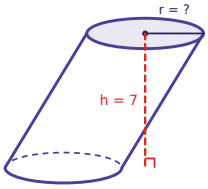
Cavalieri's Principle & Oblique Solids · 18

An oblique prism with an 8 by 3 rectangular base has a volume of 192. Find its height.



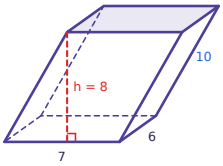
Cavalieri's Principle & Oblique Solids · 19

An oblique cylinder has height 7 and volume 448π. Find its radius.



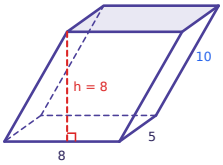
Cavalieri's Principle & Oblique Solids · 20

An oblique prism has a 7 by 6 rectangular base and a height of 8. Each slanted edge is 10 long. Find its volume.



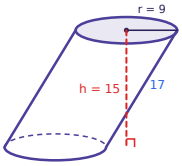
Cavalieri's Principle & Oblique Solids · 21

An oblique prism has an 8 by 5 rectangular base and a height of 8. Each slanted edge is 10 long. Find its volume.



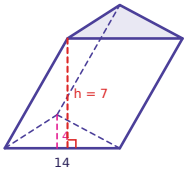
Cavalieri's Principle & Oblique Solids · 22

An oblique cylinder has radius 9 and height 15. Its slanted side is 17 long. Find its volume in terms of π.



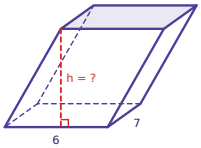
Cavalieri's Principle & Oblique Solids · 23

An oblique prism has a triangular base with base 14 and height 4. The height of the prism is 7. Find its volume.



Cavalieri's Principle & Oblique Solids · 24

An oblique prism with a 6 by 7 rectangular base has a volume of 126. Find its height.



Cavalieri's Principle & Oblique Solids · 18

ANSWER

8

Cavalieri's Principle & Oblique Solids · 17

ANSWER

yes

Cavalieri's Principle & Oblique Solids · 20

ANSWER

336

Cavalieri's Principle & Oblique Solids · 19

ANSWER

8

Cavalieri's Principle & Oblique Solids · 22

ANSWER

1215π

Cavalieri's Principle & Oblique Solids · 21

ANSWER

320

Cavalieri's Principle & Oblique Solids · 24

ANSWER

3

Cavalieri's Principle & Oblique Solids · 23

ANSWER

196