

Calculus 6.2 Part II Disk and Washer's Method

Lesson 310 | Calculus AB | Disk and washer volumes

https://www.youtube.com/watch?v=4Ux-_ya96h0

Original practice aligned to the saved video title.

Name: _____ Date: _____ Show your reasoning.

01

Rotate the region between $y=8$ and $y=1$, for $0 \leq x \leq 7$, about the x -axis. Set up a washer integral and find the volume.

02

Rotate the region between $y=7$ and $y=2$, for $0 \leq x \leq 6$, about the x -axis. Set up a washer integral and find the volume.

03

Rotate the region between $y=12$ and $y=4$, for $0 \leq x \leq 3$, about the x -axis. Set up a washer integral and find the volume.

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04

Rotate the region between $y=12$ and $y=4$, for $0 \leq x \leq 2$, about the x -axis. Set up a washer integral and find the volume.

05

Rotate the region between $y=11$ and $y=7$, for $0 \leq x \leq 7$, about the x -axis. Set up a washer integral and find the volume.

06

Rotate the region between $y=8$ and $y=6$, for $0 \leq x \leq 7$, about the x -axis. Set up a washer integral and find the volume.

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01

Rotate the region between $y=8$ and $y=1$, for $0 \leq x \leq 7$, about the x -axis. Set up a washer integral and find the volume.

Outer radius 8, inner radius 1. $V = \pi \int_0^7 (64 - 1) dx = 441\pi$ cubic units.

02

Rotate the region between $y=7$ and $y=2$, for $0 \leq x \leq 6$, about the x -axis. Set up a washer integral and find the volume.

Outer radius 7, inner radius 2. $V = \pi \int_0^6 (49 - 4) dx = 270\pi$ cubic units.

03

Rotate the region between $y=12$ and $y=4$, for $0 \leq x \leq 3$, about the x -axis. Set up a washer integral and find the volume.

Outer radius 12, inner radius 4. $V = \pi \int_0^3 (144 - 16) dx = 384\pi$ cubic units.

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04

Rotate the region between $y=12$ and $y=4$, for $0 \leq x \leq 2$, about the x -axis. Set up a washer integral and find the volume.

Outer radius 12, inner radius 4. $V = \pi \int_0^2 (144 - 16) dx = 256\pi$ cubic units.

05

Rotate the region between $y=11$ and $y=7$, for $0 \leq x \leq 7$, about the x -axis. Set up a washer integral and find the volume.

Outer radius 11, inner radius 7. $V = \pi \int_0^7 (121 - 49) dx = 504\pi$ cubic units.

06

Rotate the region between $y=8$ and $y=6$, for $0 \leq x \leq 7$, about the x -axis. Set up a washer integral and find the volume.

Outer radius 8, inner radius 6. $V = \pi \int_0^7 (64 - 36) dx = 196\pi$ cubic units.