

WebAssign

Hw 6 (6.2): Volumes (Homework)

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MA 162 Spring 2012, section 321, Spring 2012
Instructor: Jonathan Montano

Current Score : 20 / 20

Due : Tuesday, January 24 2012 11:55 PM EST

1. 2.85/2.85 points | [Previous Answers](#)

SCalcET7 6.2.004.

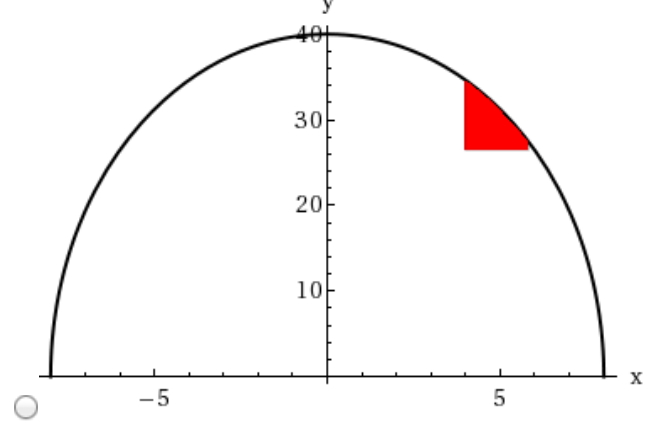
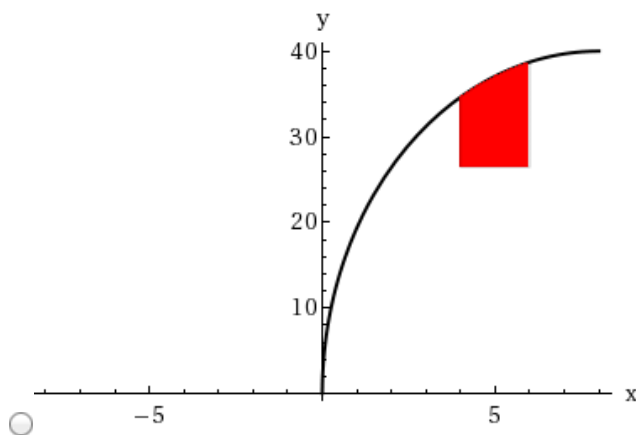
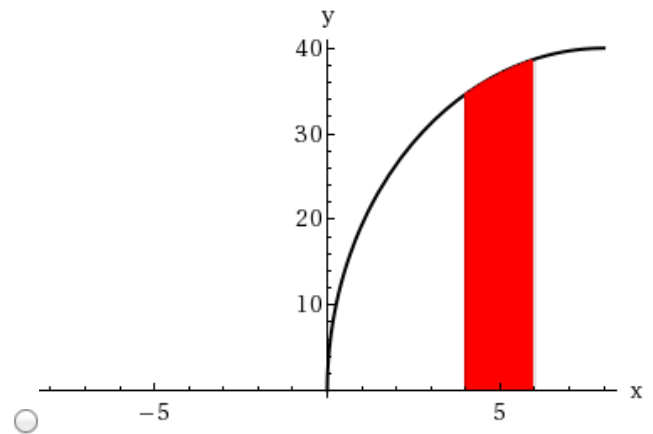
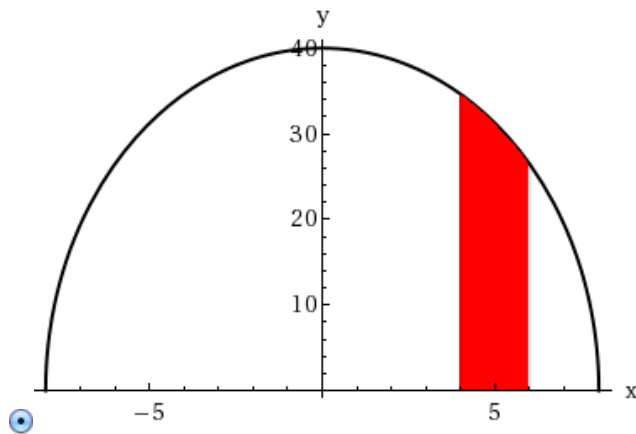
Find the volume V of the solid obtained by rotating the region bounded by the given curves about the specified line.

$$y = 5\sqrt{64 - x^2}, y = 0, x = 4, x = 6; \quad \text{about the } x\text{-axis}$$

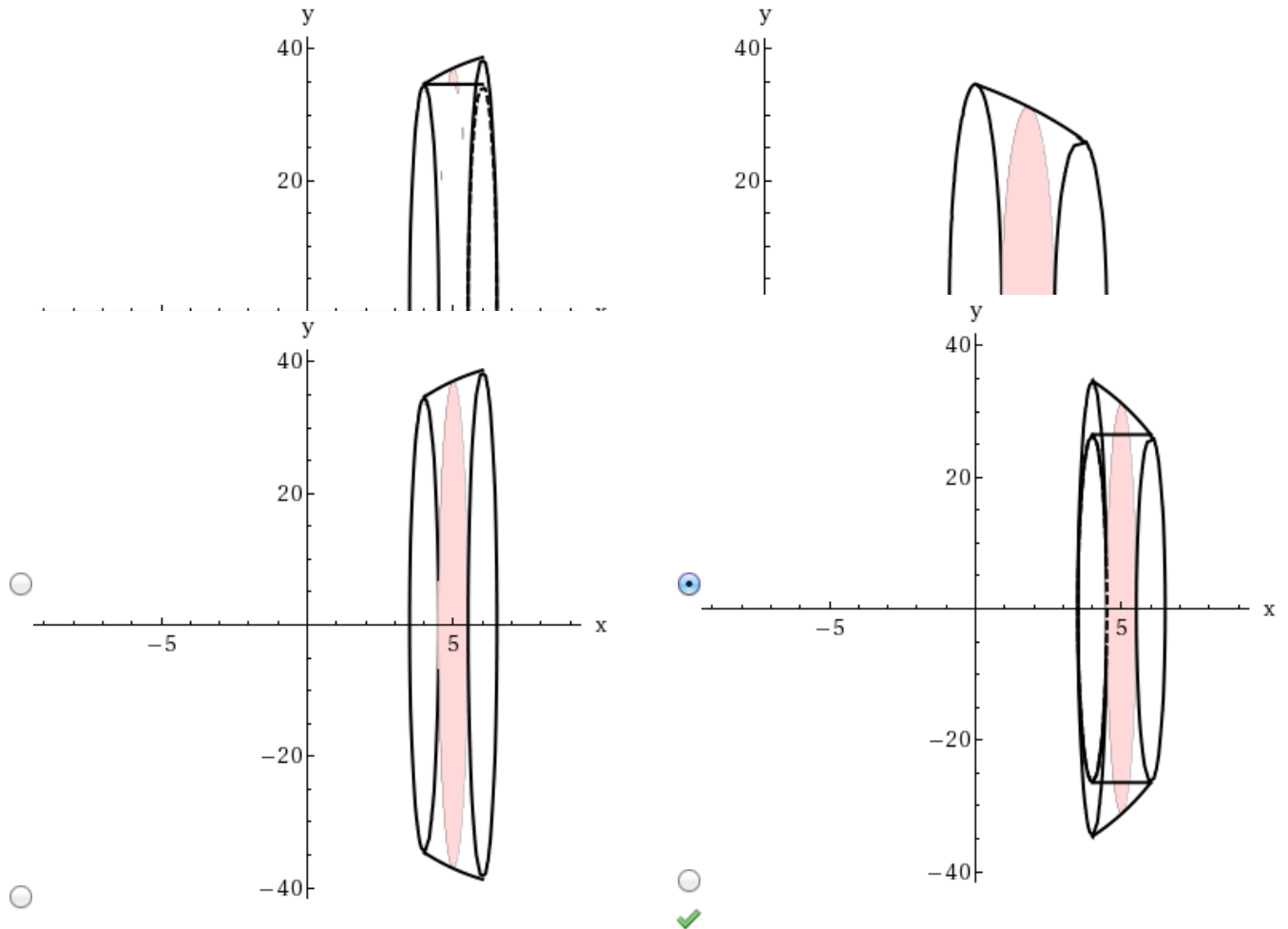
V =



Sketch the region.



Sketch the solid, and a typical disk or washer.



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2. 2.85/2.85 points | [Previous Answers](#)

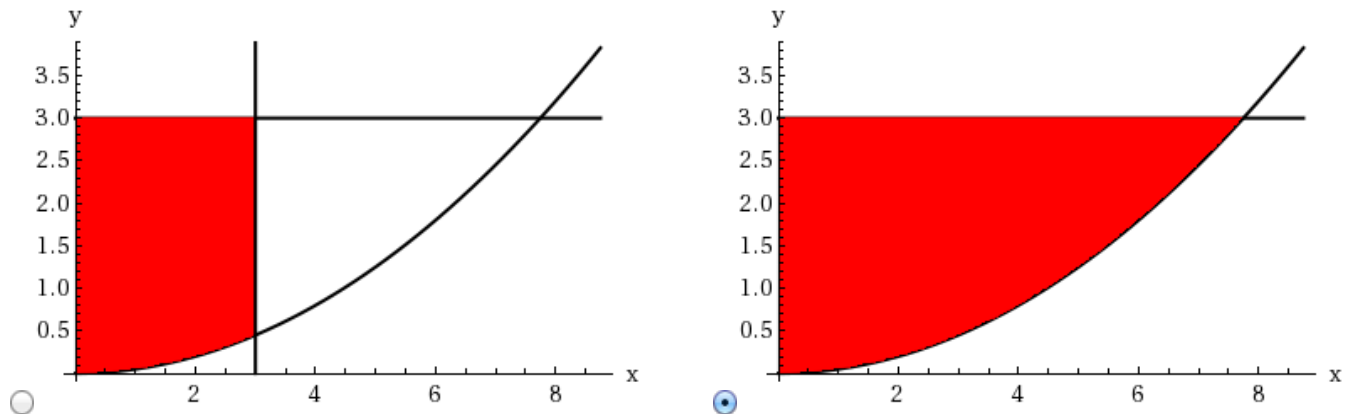
SCalcET7 6.2.005.

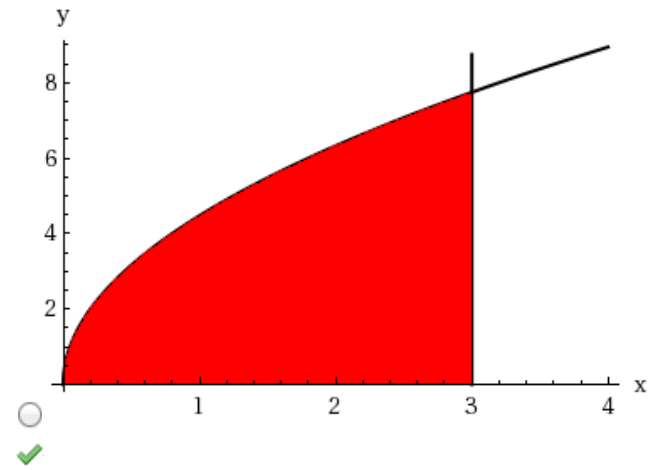
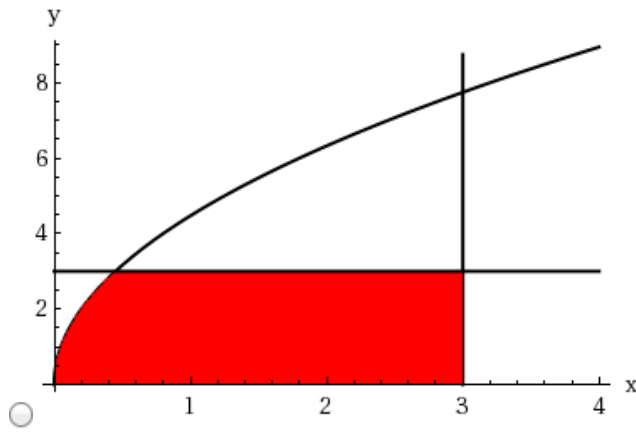
Find the volume V of the solid obtained by rotating the region bounded by the given curves about the specified line.

$x = 2\sqrt{5y}$, $x = 0$, $y = 3$; about the y -axis

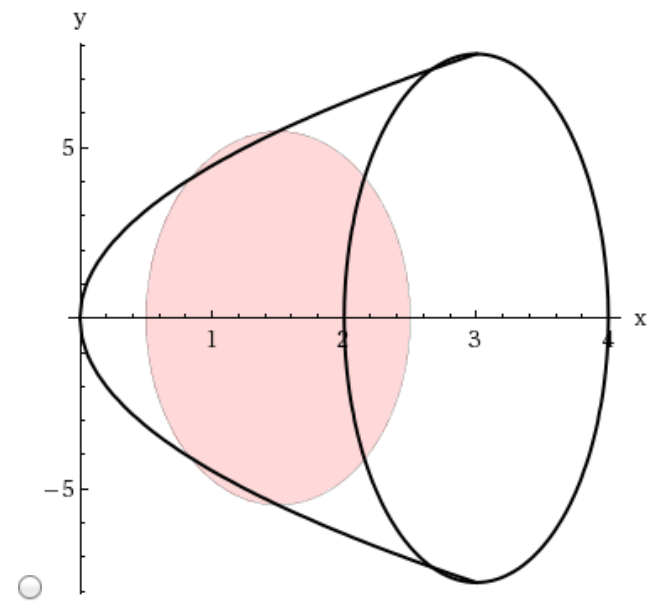
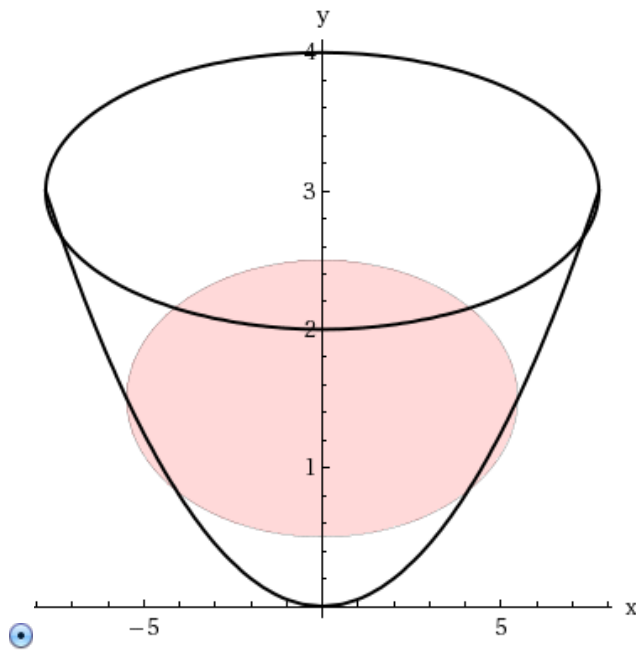
$V =$

Sketch the region.





Sketch the solid, and a typical disk or washer.



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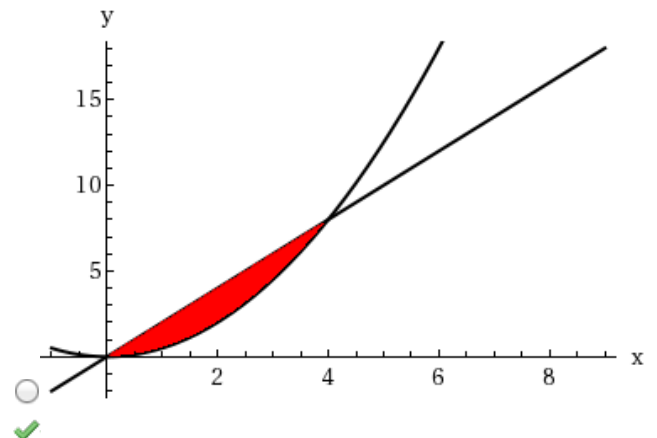
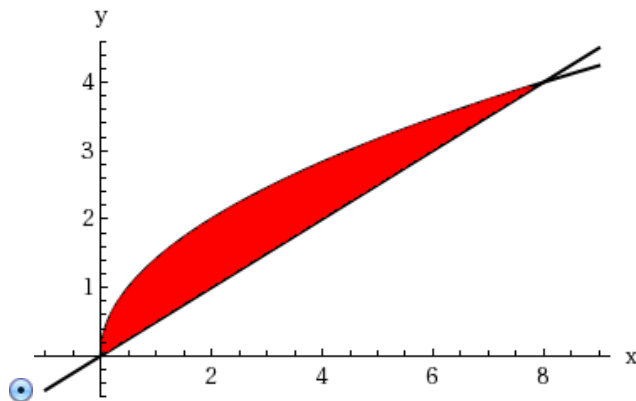
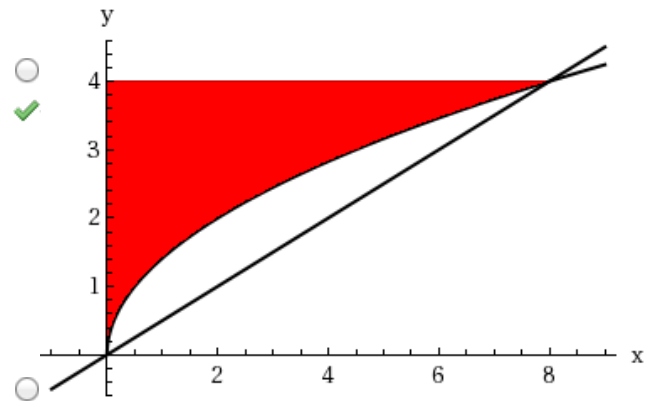
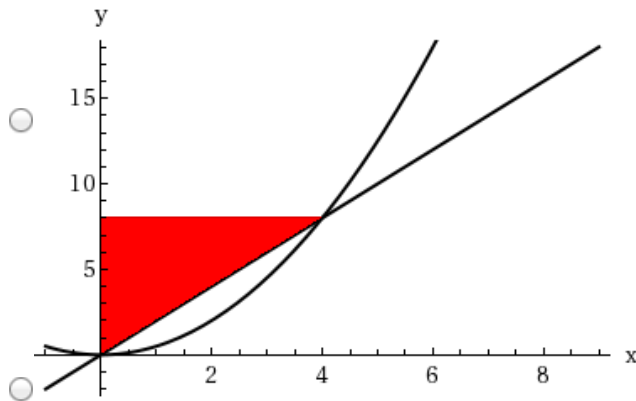
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3. 2.85/2.85 points | [Previous Answers](#)Find the volume V of the solid obtained by rotating the region bounded by the given curves about the specified line.

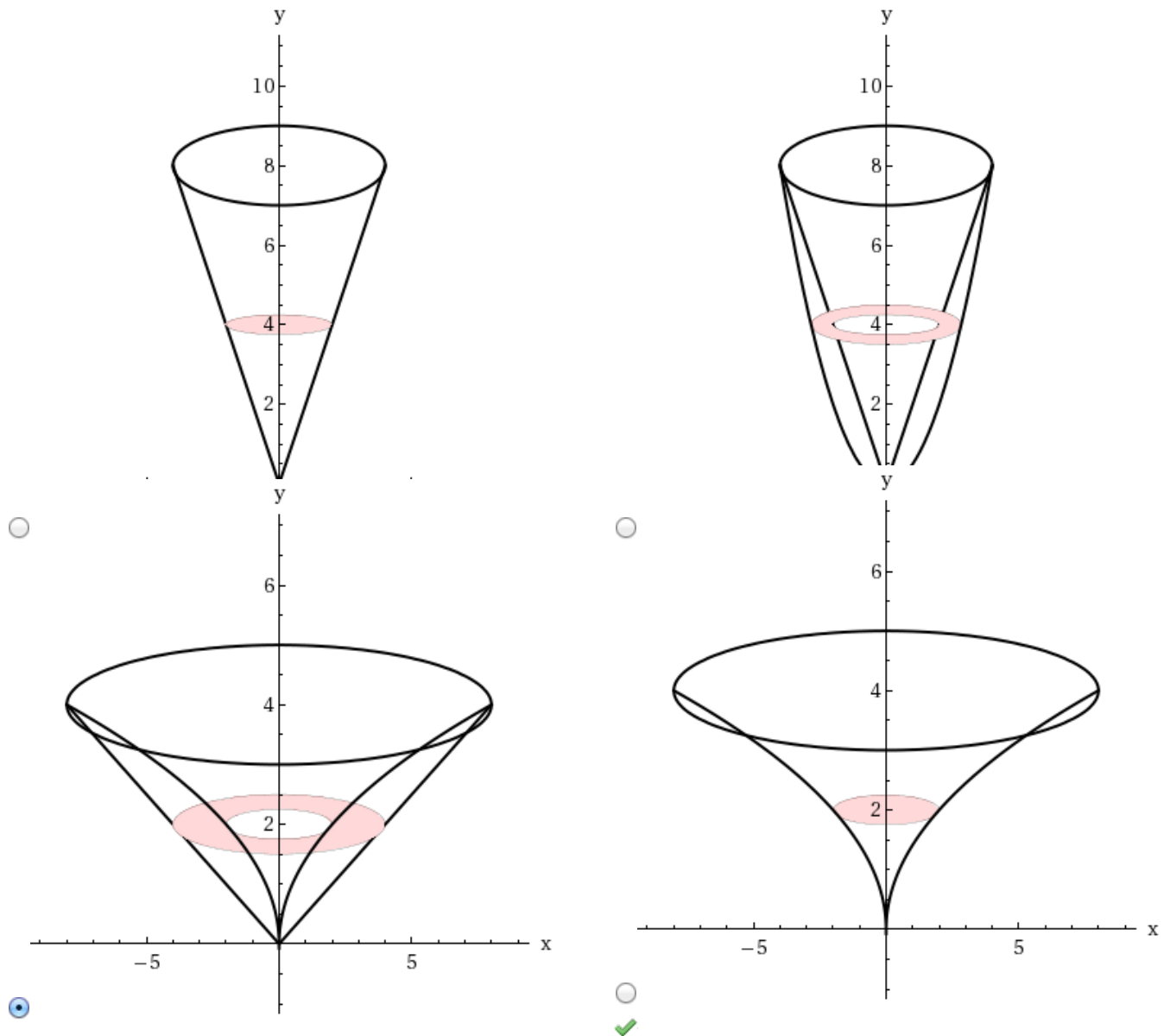
$$y^2 = 2x, x = 2y; \text{ about the } y\text{-axis}$$

 $V =$ ✓

Sketch the region.



Sketch the solid, and a typical disk or washer.



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4. 2.85/2.85 points | [Previous Answers](#)

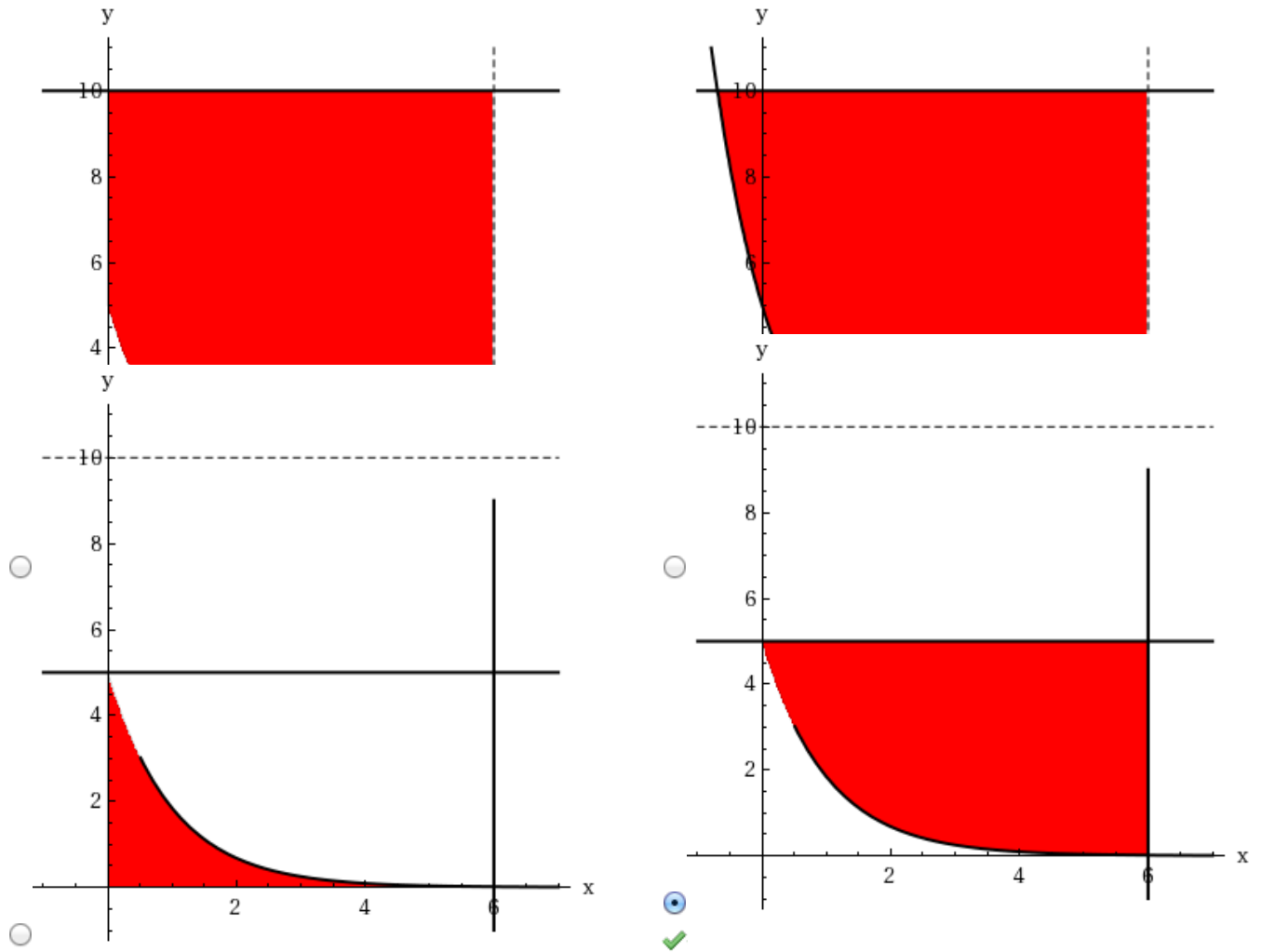
SCalcET7 6.2.012.

Find the volume V of the solid obtained by rotating the region bounded by the given curves about the specified line.

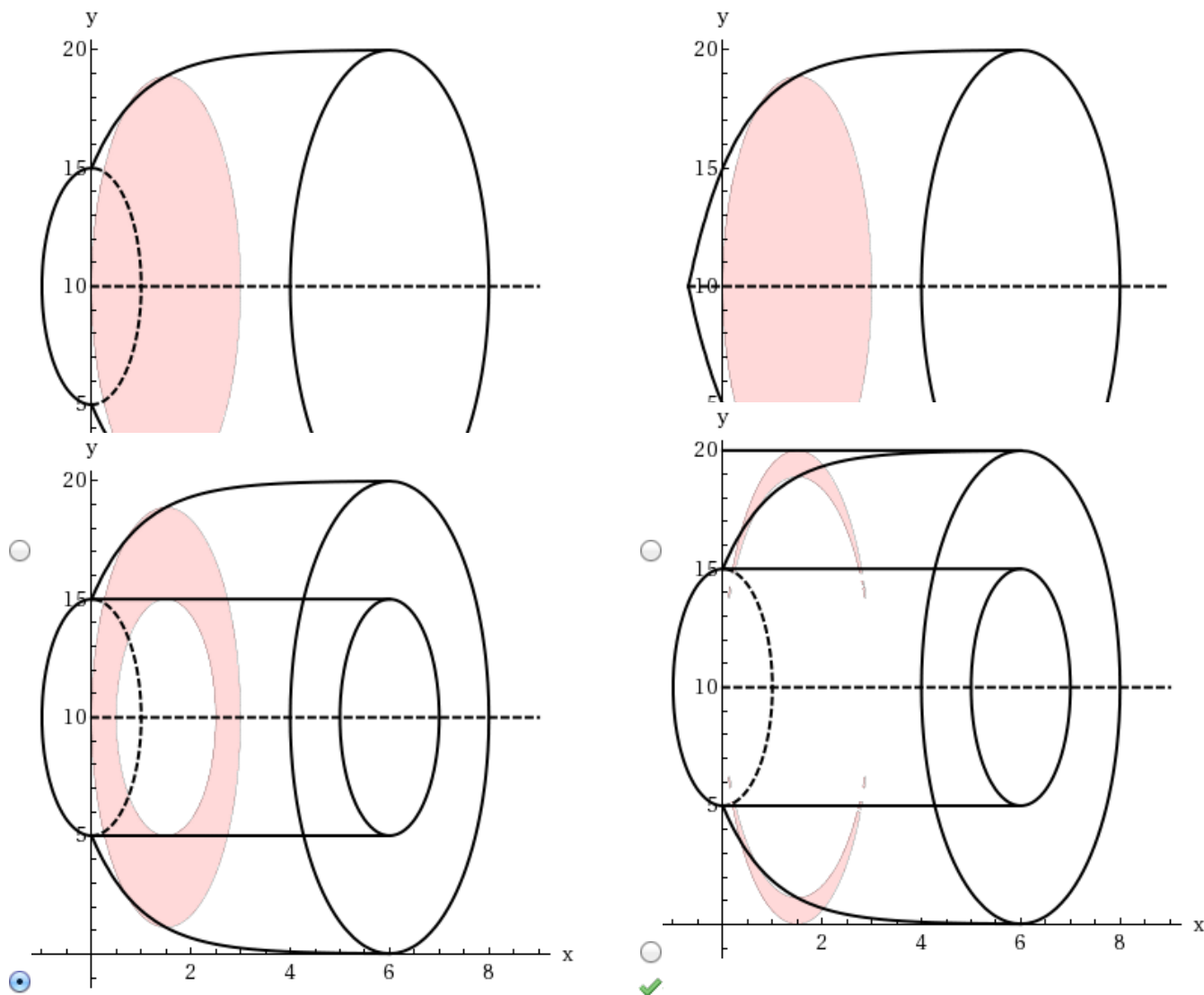
$$y = 5e^{-x}, y = 5, x = 6; \quad \text{about } y = 10$$

 $V =$

Sketch the region.



Sketch the solid, and a typical disk or washer.



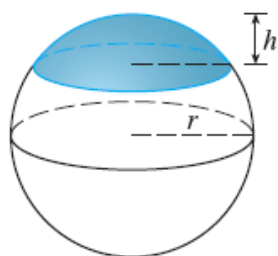
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5. 2.85/2.85 points | [Previous Answers](#)

SCalcET7 6.2.049.

Find the volume V of the described solid S .A cap of a sphere with radius r and height h $V =$ 

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6. 2.85/2.85 points | [Previous Answers](#)

SCalcET7 6.2.054.

Find the volume V of the described solid S .The base of S is a circular disk with radius $4r$. Parallel cross-sections perpendicular to the base are squares. $V =$ 

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7. 2.9/2.9 points | [Previous Answers](#)

SCalcET7 6.2.056.

Find the volume V of the described solid S .The base of S is the triangular region with vertices $(0, 0)$, $(2, 0)$, and $(0, 2)$. Cross-sections perpendicular to the y -axis are equilateral triangles. $V =$ 

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