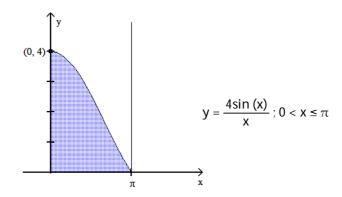
Use the shell method to find the volume of the solid generated by revolving the shaded region about the indicated axis.

1) About the y-axis





Use the shell method to find the volume of the solid generated by revolving the region bounded by the given curves and lines about the y-axis.

2) 
$$y = 7x^3$$
,  $y = 7x$ , for  $x \ge 0$ 

Use the shell method to find the volume of the solid generated by revolving the region bounded by the given curves and lines about the x-axis.

3) 
$$x = 4y - y^2$$
,  $x = 0$ 

Use the shell method to find the volume of the solid generated by revolving the region bounded by the given curves about the given lines.

4) 
$$y = 3x$$
,

$$y = 0$$
,

$$y = 0$$
,  $x = 2$ ; revolve about the line  $x = -3$ 

Find the volume of the solid generated by revolving the region about the given axis. Use the shell or washer method.

5) The region bounded by 
$$x = 4\sqrt{y}$$
,  $x = -4y$ , and  $y = 1$  about the line  $y = 1$ 

Answers:

- 1)  $16\pi$ ,
- 2)  $28\pi/15$
- 3)  $128\pi/3$
- 4)  $52\pi$
- 5)  $52\pi/15$