

Name : \_\_\_\_\_

Score : \_\_\_\_\_

Teacher : \_\_\_\_\_

Date : \_\_\_\_\_

## Volume Using Cylindrical Shells

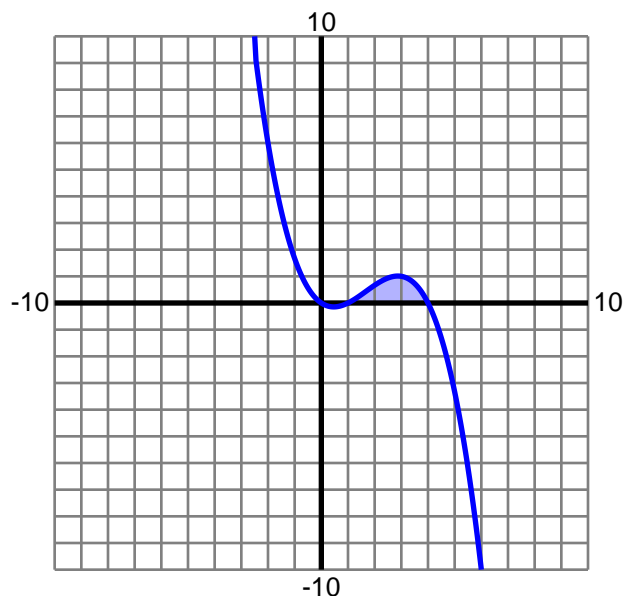
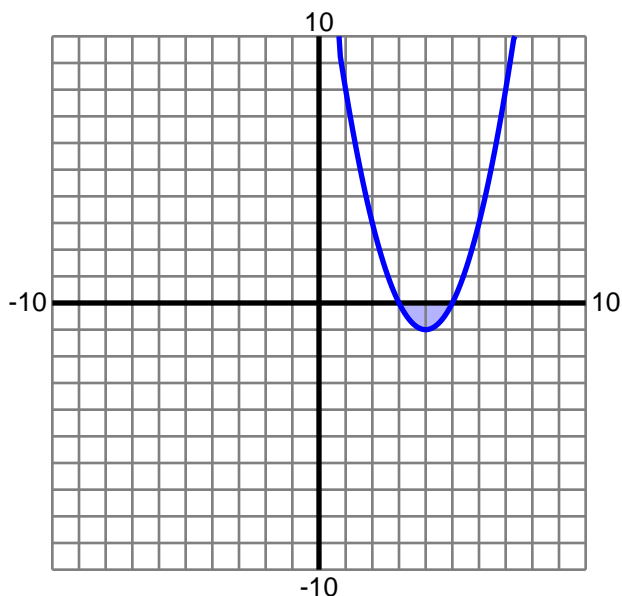
Find the volume of the solid formed by rotating the enclosed region about the specified axis. Use cylindrical shells and round to two decimals.

1)  $y = x^2 - 8x + 15$

Axis:  $x = 0$

2)  $y = -\frac{1}{6}x^3 + \frac{5}{6}x^2 - \frac{2}{3}x$

Axis:  $x = 0$

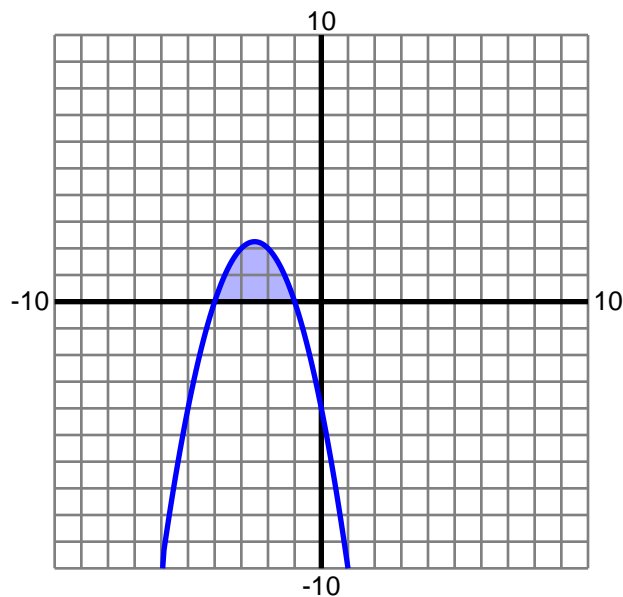
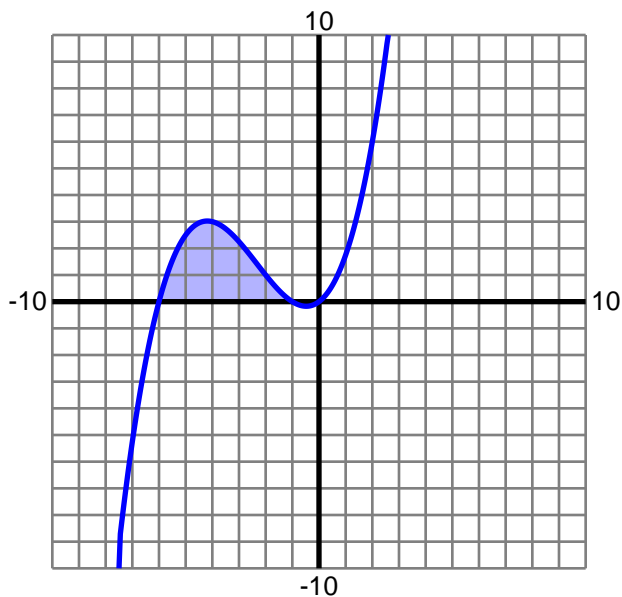


3)  $y = \frac{1}{8}x^3 + \frac{7}{8}x^2 + \frac{3}{4}x$

Axis:  $x = 0$

4)  $y = -x^2 - 5x - 4$

Axis:  $x = 0$



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1)  $y = x^2 - 8x + 15$

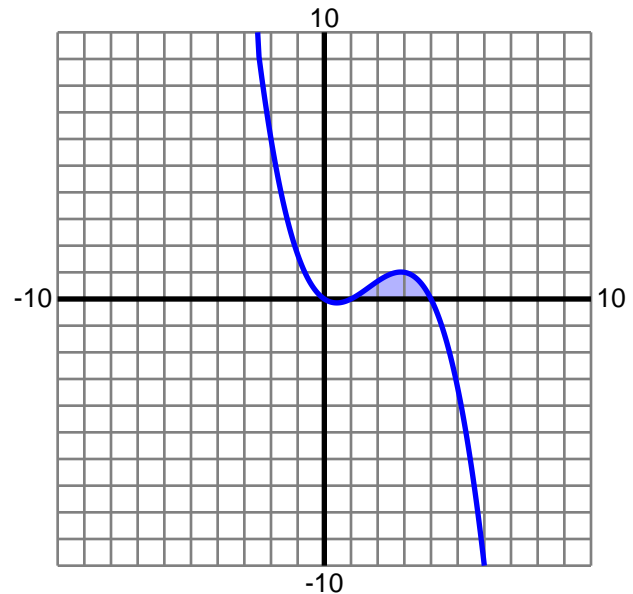
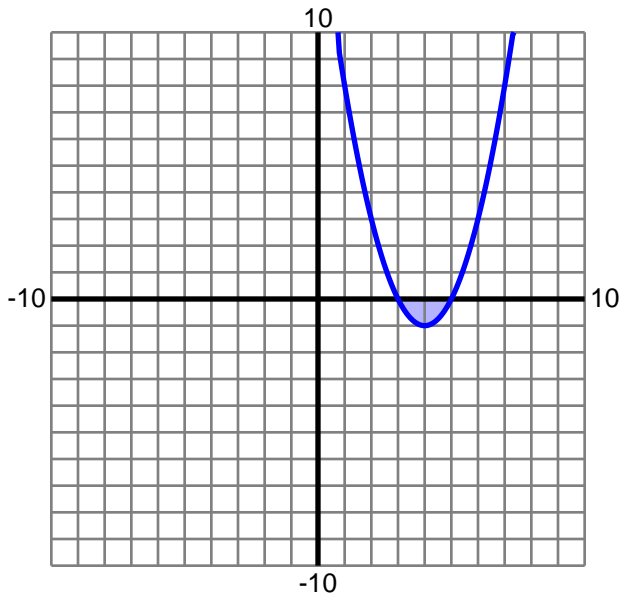
Axis:  $x = 0$ 

Volume: 33.51

2)  $y = -\frac{1}{6}x^3 + \frac{5}{6}x^2 - \frac{2}{3}x$

Axis:  $x = 0$ 

Volume: 31.57



3)  $y = \frac{1}{8}x^3 + \frac{7}{8}x^2 + \frac{3}{4}x$

Axis:  $x = 0$ 

Volume: 220.89

4)  $y = -x^2 - 5x - 4$

Axis:  $x = 0$ 

Volume: 70.69

