

Name : _____

Score : _____

Teacher : _____

Date : _____

Volume Using Cylindrical Shells

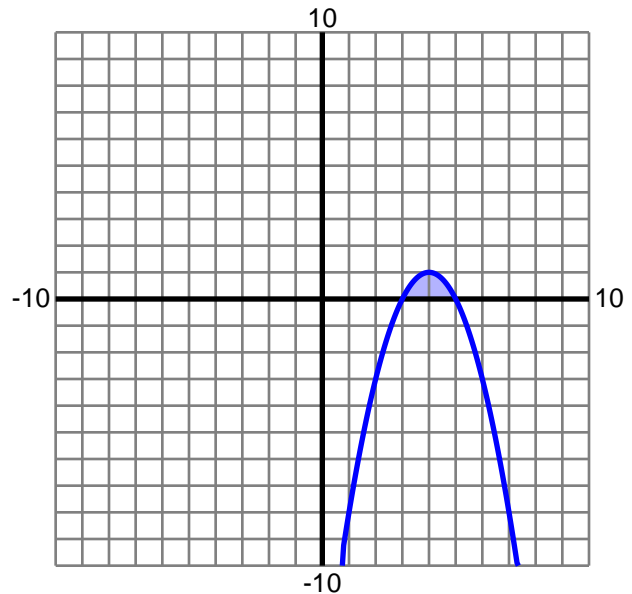
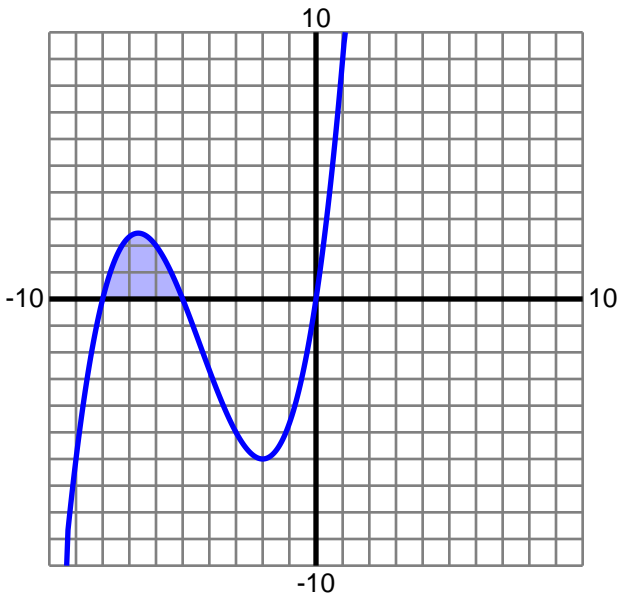
Find the volume of the solid formed by rotating the enclosed region about the specified axis. Use cylindrical shells and round to two decimals.

1) $y = \frac{1}{6}x^3 + \frac{13}{6}x^2 + \frac{20}{3}x$

Axis: $x = 0$

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

Axis: $x = 0$

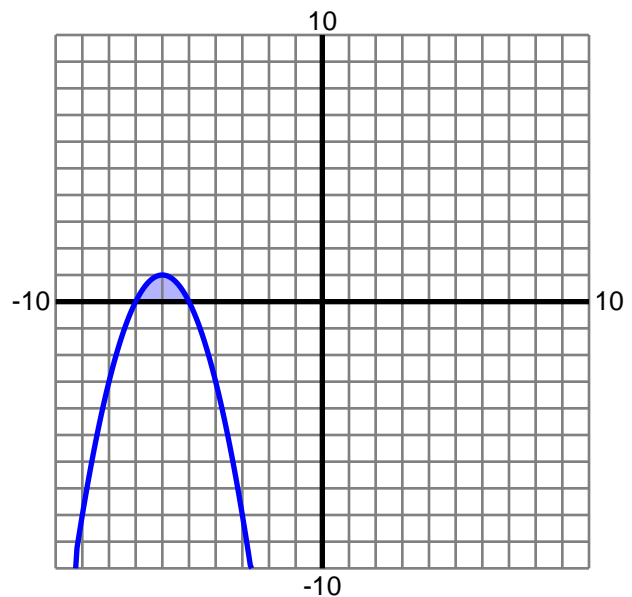
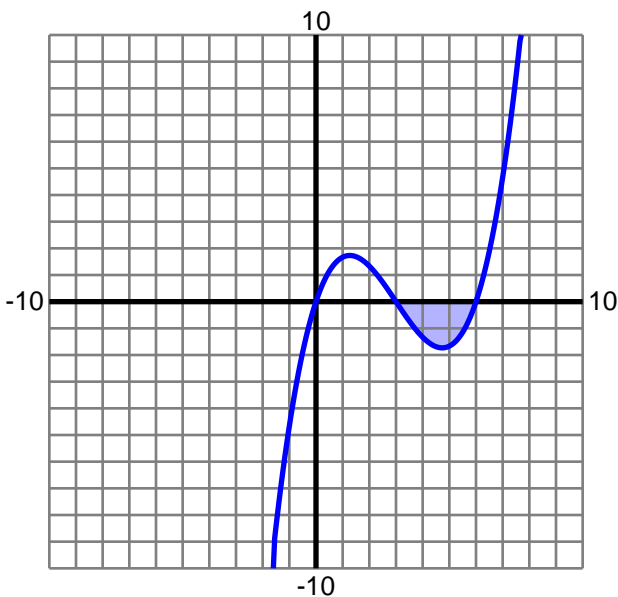


3) $y = \frac{1}{6}x^3 - \frac{3}{2}x^2 + 3x$

Axis: $x = 0$

4) $y = -x^2 - 12x - 35$

Axis: $x = 0$



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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.

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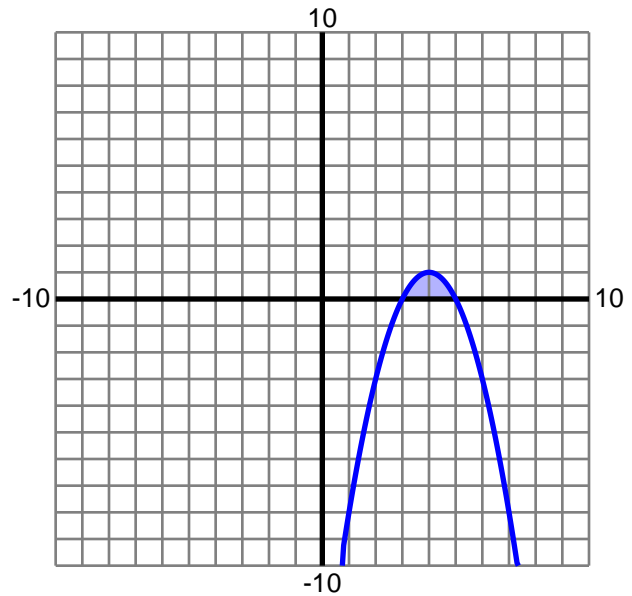
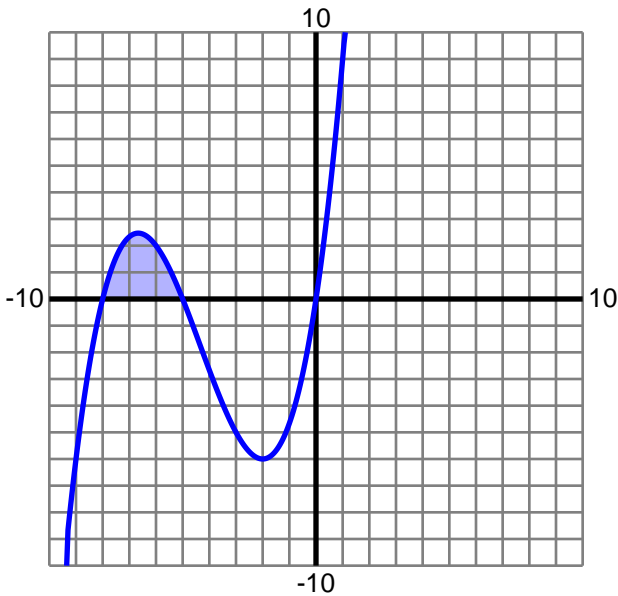
Axis: $x = 0$

Volume: 201.22

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

Axis: $x = 0$

Volume: 33.51



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

Axis: $x = 0$

Volume: 97.55

4) $y = -x^2 - 12x - 35$

Axis: $x = 0$

Volume: 50.27

