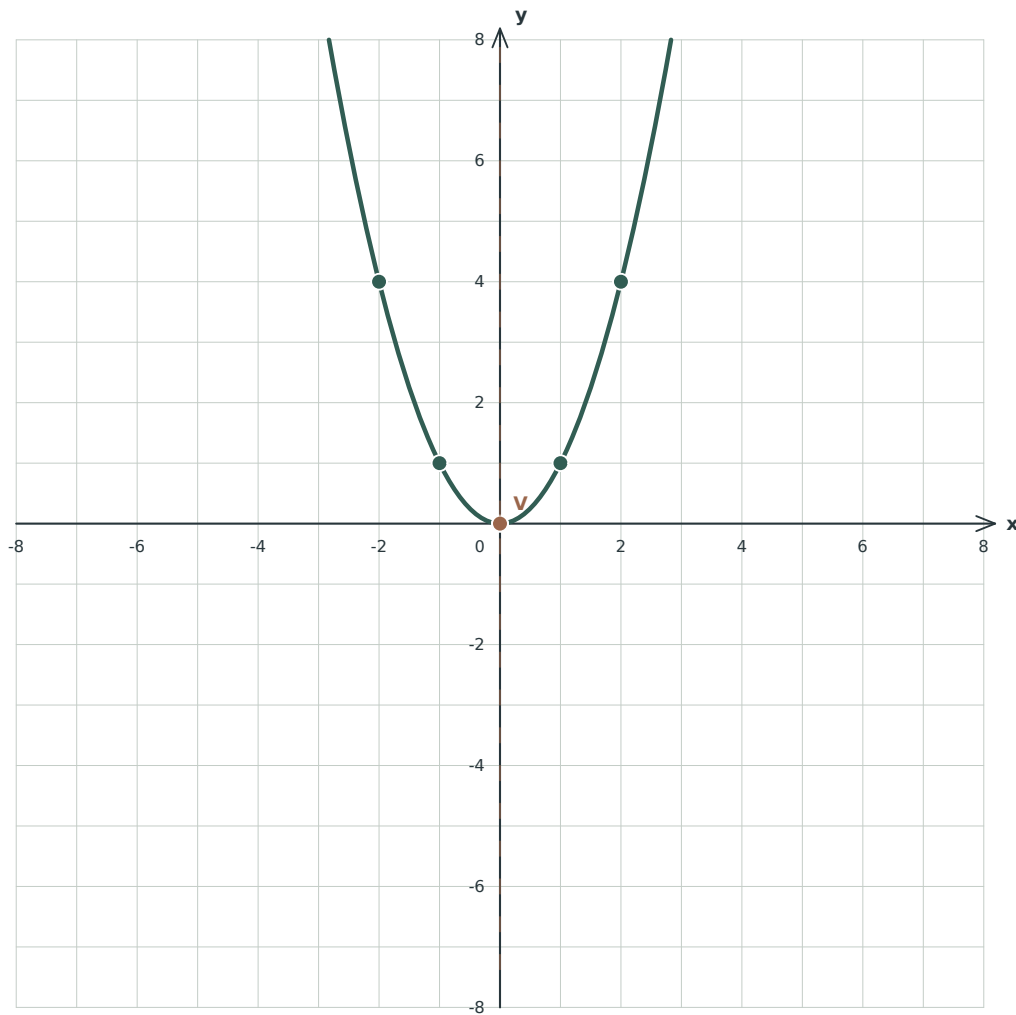


An upward parabola

Use the vertex and a five-point table to sketch a smooth parabola. The plotted curve is not a chain of straight chords.

$y = 1(x - (0))^2 + (0)$. Table x values: -2, -1, 0, 1, 2. Every interval is 1 unit.



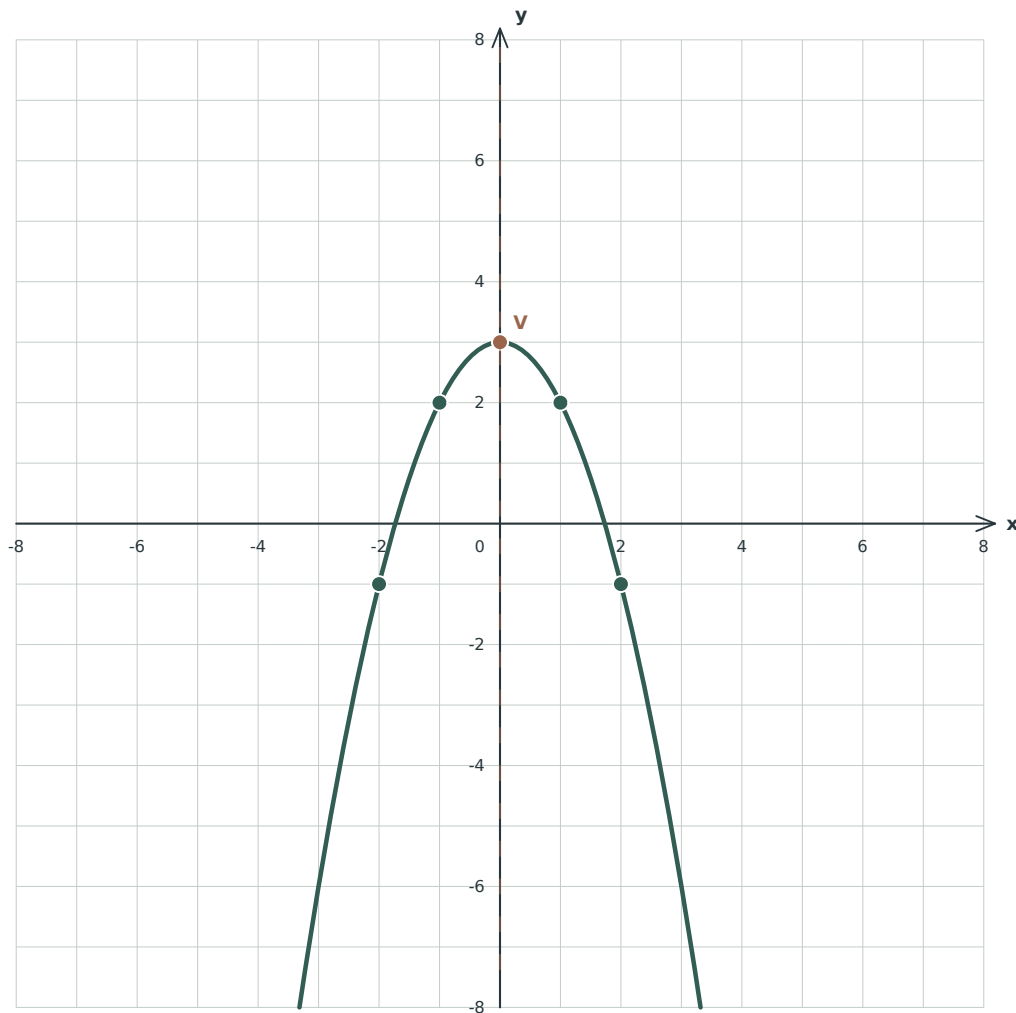
1. Locate the vertex and symmetry line. Vertex (0,0); symmetry line $x=0$.
2. Calculate and plot the five table points. (-2,4); (-1,1); (0,0); (1,1); (2,4)
3. State direction and vertex type. Opens up; vertex is a minimum.

Original practice data / coordinate units, not ruler measurements / physical printing not tested

A downward parabola

Use the vertex and a five-point table to sketch a smooth parabola. The plotted curve is not a chain of straight chords.

$y = -1(x - (0))^2 + (3)$. Table x values: -2, -1, 0, 1, 2. Every interval is 1 unit.



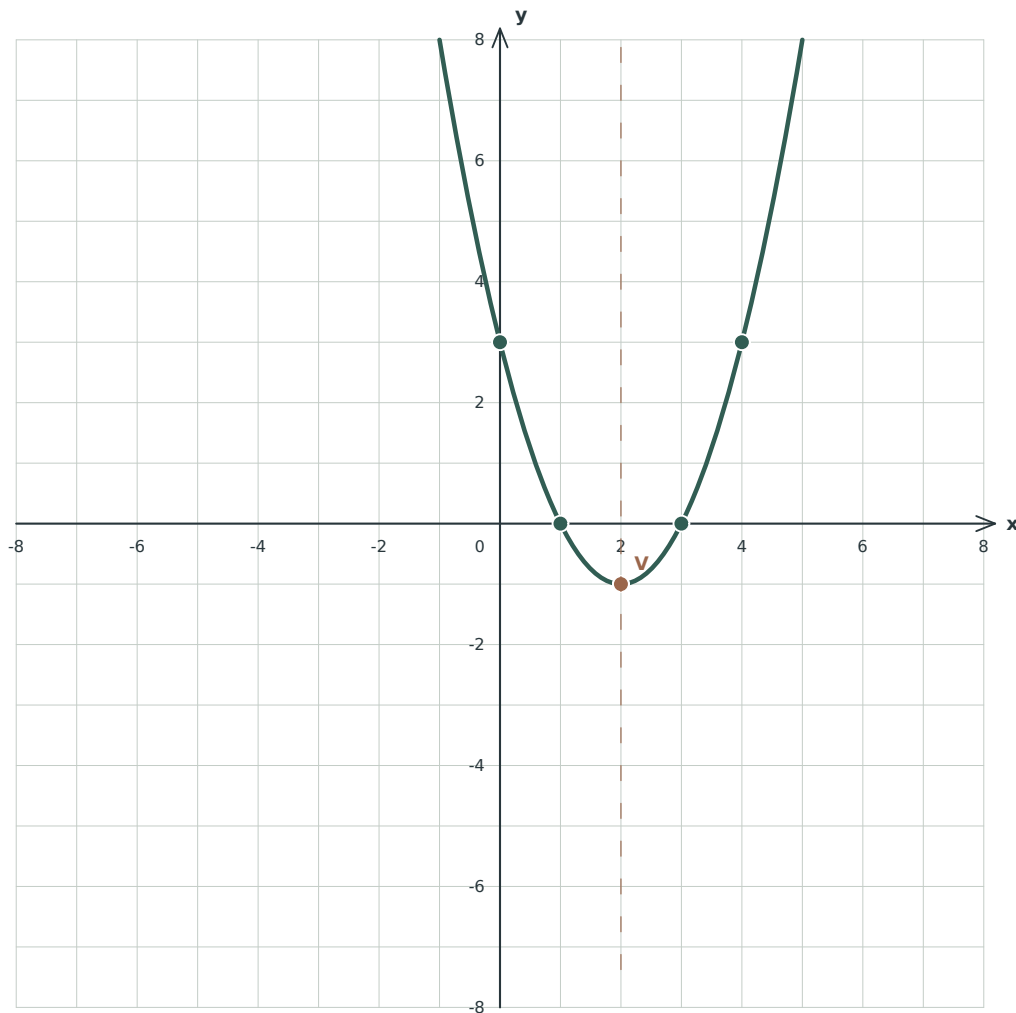
1. Locate the vertex and symmetry line. Vertex (0,3); symmetry line $x=0$.
2. Calculate and plot the five table points. (-2,-1); (-1,2); (0,3); (1,2); (2,-1)
3. State direction and vertex type. Opens down; vertex is a maximum.

Original practice data / coordinate units, not ruler measurements / physical printing not tested

A shifted vertex

Use the vertex and a five-point table to sketch a smooth parabola. The plotted curve is not a chain of straight chords.

$y = 1(x - 2)^2 + (-1)$. Table x values: 0, 1, 2, 3, 4. Every interval is 1 unit.



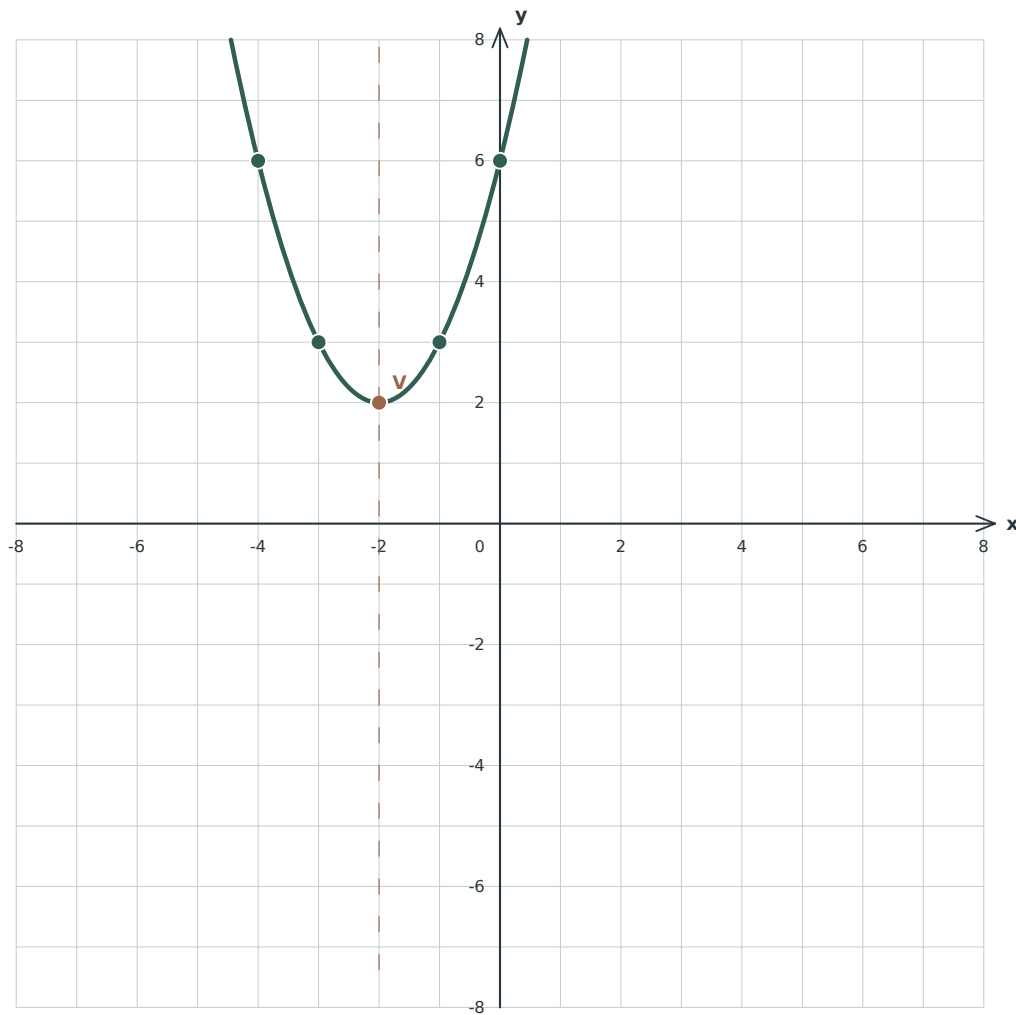
1. Locate the vertex and symmetry line. Vertex (2,-1); symmetry line $x=2$.
2. Calculate and plot the five table points. (0,3); (1,0); (2,-1); (3,0); (4,3)
3. State direction and vertex type. Opens up; vertex is a minimum.

Original practice data / coordinate units, not ruler measurements / physical printing not tested

A left and upward shift

Use the vertex and a five-point table to sketch a smooth parabola. The plotted curve is not a chain of straight chords.

$y = 1(x - (-2))^2 + (2)$. Table x values: -4, -3, -2, -1, 0. Every interval is 1 unit.



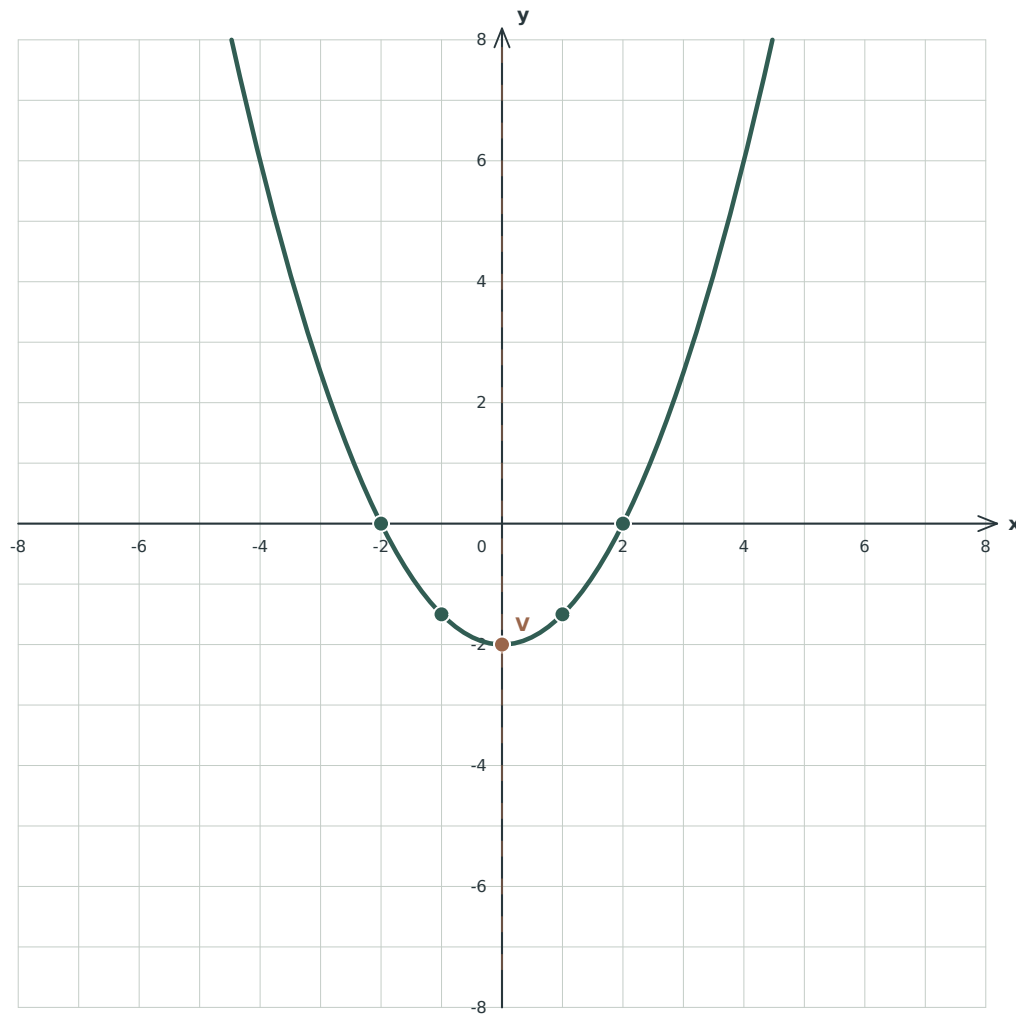
1. Locate the vertex and symmetry line. Vertex (-2,2); symmetry line $x=-2$.
2. Calculate and plot the five table points. (-4,6); (-3,3); (-2,2); (-1,3); (0,6)
3. State direction and vertex type. Opens up; vertex is a minimum.

Original practice data / coordinate units, not ruler measurements / physical printing not tested

A wider upward parabola

Use the vertex and a five-point table to sketch a smooth parabola. The plotted curve is not a chain of straight chords.

$y = \frac{1}{2}(x - 0)^2 + (-2)$. Table x values: -2, -1, 0, 1, 2. Every interval is 1 unit.



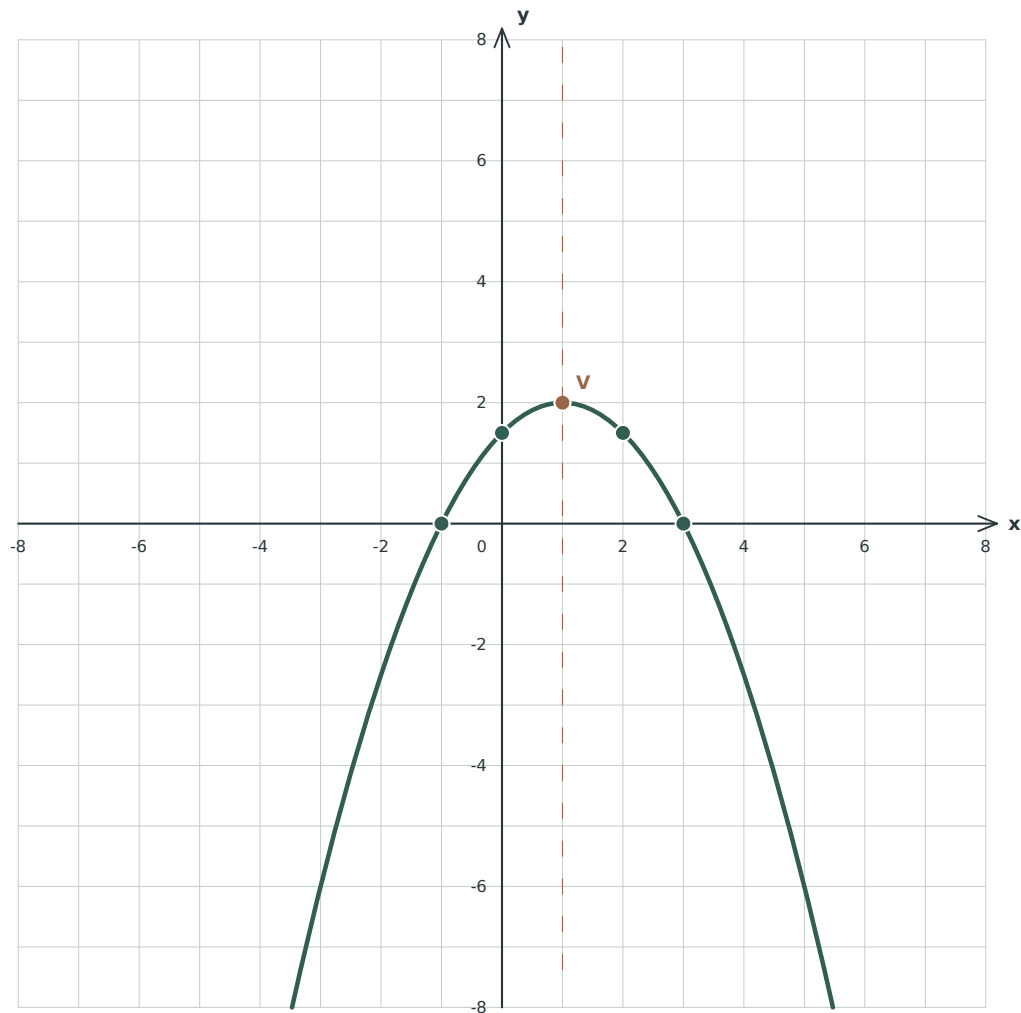
1. Locate the vertex and symmetry line. Vertex (0,-2); symmetry line $x=0$.
2. Calculate and plot the five table points. (-2,0); (-1,-3/2); (0,-2); (1,-3/2); (2,0)
3. State direction and vertex type. Opens up; vertex is a minimum.

Original practice data / coordinate units, not ruler measurements / physical printing not tested

A wider downward parabola

Use the vertex and a five-point table to sketch a smooth parabola. The plotted curve is not a chain of straight chords.

$y = -1/2(x - 1)^2 + 2$. Table x values: -1, 0, 1, 2, 3. Every interval is 1 unit.



1. Locate the vertex and symmetry line. Vertex (1,2); symmetry line $x=1$.
2. Calculate and plot the five table points. (-1,0); (0,3/2); (1,2); (2,3/2); (3,0)
3. State direction and vertex type. Opens down; vertex is a maximum.

Original practice data / coordinate units, not ruler measurements / physical printing not tested