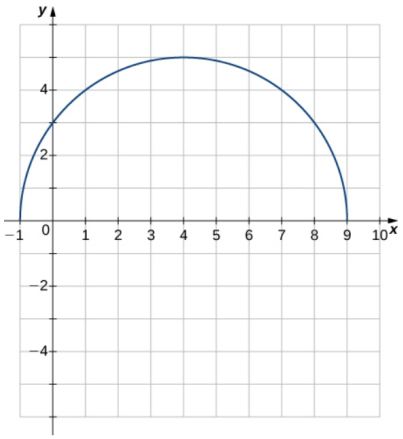
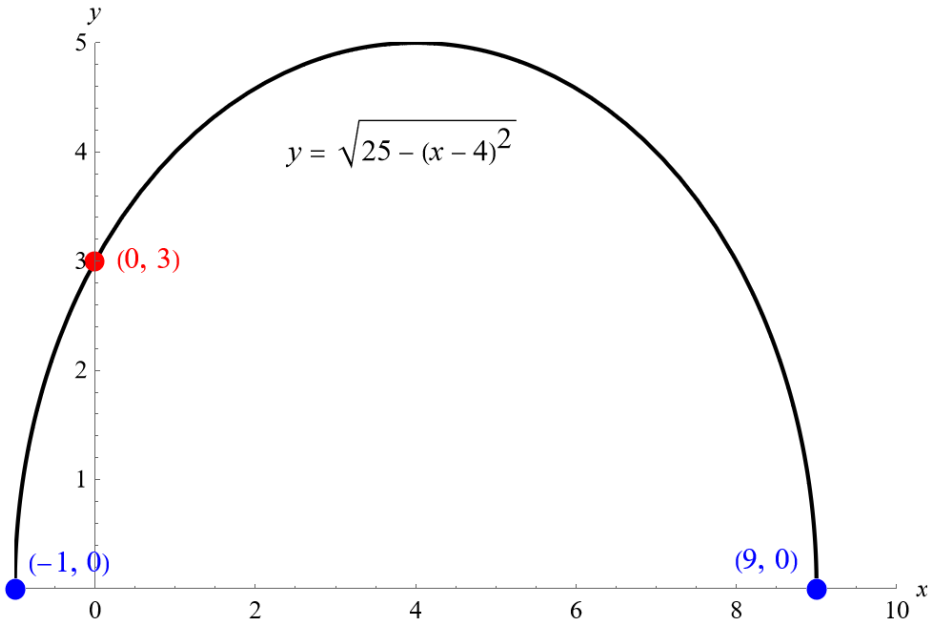
Exercise 58

Use a graphing calculator to graph the half-circle $y = \sqrt{25 - (x-4)^2}$. Then, use the INTERCEPT feature to find the value of both the x- and y-intercepts.



Solution

The graph of $y = \sqrt{25 - (x-4)^2}$ versus x is shown below.



y-intercepts are the points where the curve touches the y-axis (marked in red). Similarly, x-intercepts are the points where the curve touches the x-axis (marked in blue).