

PQ #22

MTH 1825 Practice Quiz for the Vertex of a Quadratic Function

1. Find the x -intercept(s) and the coordinates of the vertex for the parabola $y = -x^2 - 4x + 5$.

x -intercept(s): _____ vertex: _____

2. The cost C (in dollars) of manufacturing x chairs at Kaitlin's Furniture Factory is given by the function $C(x) = 0.6x^2 - 324x + 55,912$.
- a. How many chairs must be made to minimize the cost?

Answer: _____

- b. What is the minimum cost of manufacturing chairs?

Answer: _____

3. A ball is thrown vertically upward. After t seconds, its height h (in feet) is given by the function $h(t) = 112t - 16t^2$. After how long will it reach its maximum height?

Answer: _____