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| 1. Identify the axis of symmetry and vertex:

$$y=x^{2}+4x-3$$AOS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Vertex: \_\_\_\_\_\_\_\_\_\_\_\_\_Is the vertex a minimum or maximum? \_\_\_\_\_\_\_\_What is the value of the discriminant? \_\_\_\_\_\_\_\_\_How many roots does it have? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_What are the roots? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 1. Graph the following function:

$$y= x^{2}-8x+12$$ |
| 1. A model rocket is launched with a velocity of 64 feet per second. The equation $h=-16t^{2}+64t$ gives the height of the rocket t seconds after it is launched.

Graph the equation: What is the highest the rocket will reach? |