**Name:**

**Warm-It-Up**

1. The graph of *h = -16t2 + 48t* is shown below:



* 1. Sketch a graph of *h = -16t2 + 48t + 6* on the above graph. Then describe how the graphs are related to each other.
	2. Which equation better represents the height in feet of a thrown ball *t* seconds after it is thrown. Explain your reasoning.
	3. Using the equations given, determine how much longer the ball is in the air for *h = -16t2 + 48t + 6* rather than *h = -16t2 + 48t* if it is not touched before hitting the ground.