

Name _____

Date _____ Pd. _____

Exit Card: Factoring Overview

ECR

Tom jumps from a diving board into a swimming pool. His initial upward velocity, v , is 48 feet per second, and his initial height, s , is 64 feet.

- Using the vertical motion model $h(t) = -16t^2 + vt + s$, where $h(t)$ is Tom's height above the water after t seconds, write a function that represents Tom's height above the water.
- How many seconds will it take Tom to hit the water (height = 0)? Use mathematics to explain how you determined your answer. Use words, symbols, or both in your explanation.