## Unit 7 Lesson 4: Solving Quadratic Equations with the Zero Product Property

### 1 Math Talk: Solve These Equations (Warm up)

#### Student Task Statement

What values of the variables make each equation true?

### 2 Take the Zero Product Property Out for a Spin

#### Student Task Statement

For each equation, find its solution or solutions. Be prepared to explain your reasoning.

### 3 Revisiting a Projectile

#### Student Task Statement

We have seen quadratic functions modeling the height of a projectile as a function of time.

Here are two ways to define the same function that approximates the height of a projectile in meters,  seconds after launch:

1. Which way of defining the function allows us to use the zero product property to find out when the height of the object is 0 meters?
2. Without graphing, determine at what time the height of the object is 0 meters. Show your reasoning.



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