## Algebra 2 Bellwork

## Friday, November 7, 2014

1. A company's costs are modeled by the following equation where e represents the number of employees and C(e) are the costs as a function of the number of employees:

$$C(e) = 1.2e^2 - 84e + 4355$$

- a) Find the number of employees that would minimize the company's costs
- b) Find the minimum costs.
- 2. An object is shot into the air from the top of a 20 foot building. The following equation models the height of the object as a function of time:

$$h(t) = -16t^2 + 108t + 20$$

When will the object reach a height of 92 feet?

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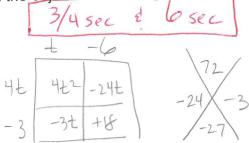
 a) Find the number of employees that would minimize the company's costs



2. An object is shot into the air from the top of a 20 foot building. The following equation models the height of the object as a function of time:

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When will the object reach a height of 92 feet?



$$12 = -16t^{2} + 108t + 120$$

$$16t^{2} - 108t + 72 = 0$$

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$$16t^{2} - 108t + 18 = 0$$