**7/9/2019**

**Gradient Descent Algorithm: (Flipped Classroom)**

**Video Links for Gradient Descent Algorithm**

* https://www.youtube.com/watch?v=F6GSRDoB-Cg&index=7&list=PLLssT5z\_DsK-h9vYZkQkYNWcItqhlRJLN
* https://www.youtube.com/watch?v=YovTqTY-PYY&index=8&list=PLLssT5z\_DsK-h9vYZkQkYNWcItqhlRJLN
* <https://www.youtube.com/watch?v=GtSf2T6Co80&list=PLLssT5z_DsK-h9vYZkQkYNWcItqhlRJLN&index=9>

Answer the following questions:

Consider the problem of predicting how well a student does in her second year of college/university, given how well she did in her first year.

Specifically, let x be equal to the number of "A" grades (including A-. A and A+ grades) that a student receives in their first year of college (freshmen year). We would like to predict the value of y, which we define as the number of "A" grades they get in their second year

| **x** | **y** |
| --- | --- |
| 5 | 4 |
| 3 | 4 |
| 0 | 1 |
| 4 | 3 |

Consider the linear regression model hθ(x)=θ0+θ1x. What are the values of θ0 and θ1 that you would expect to obtain upon running gradient descent on this model?