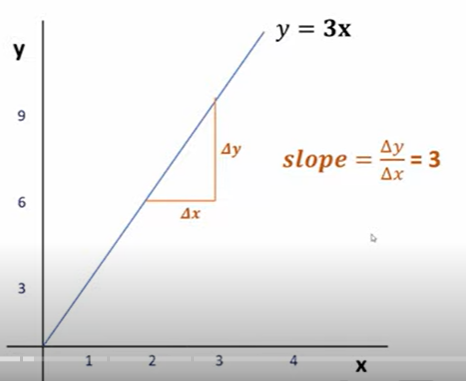
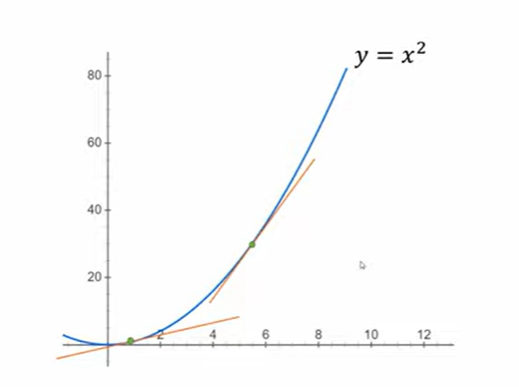
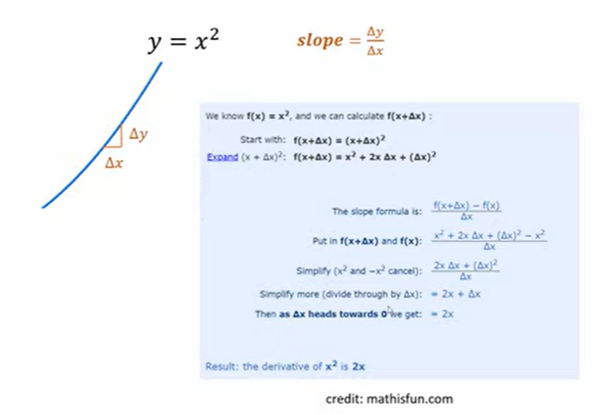
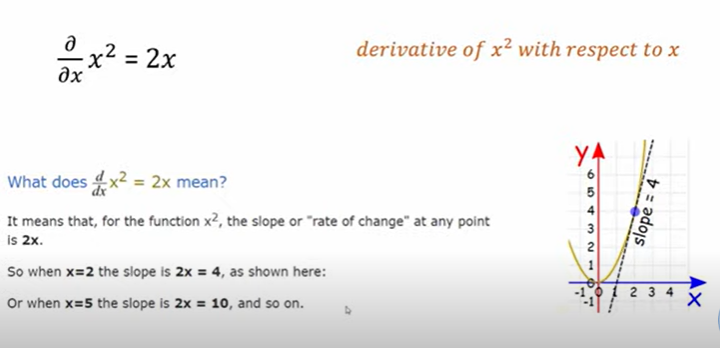
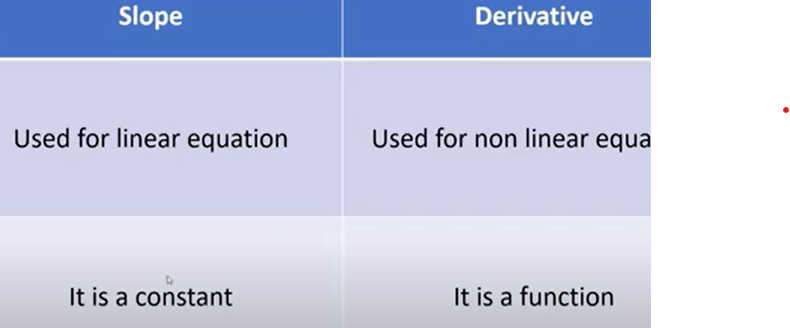
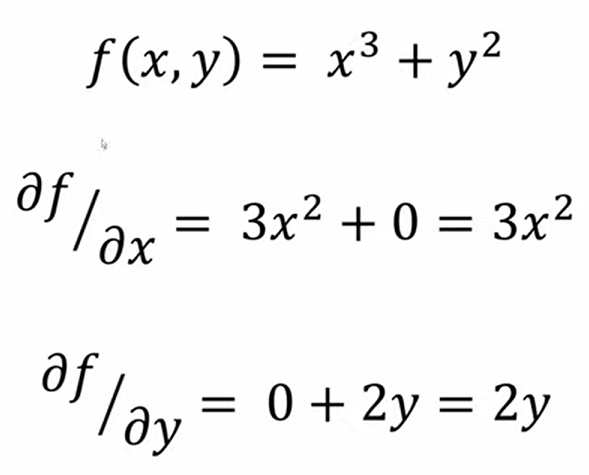
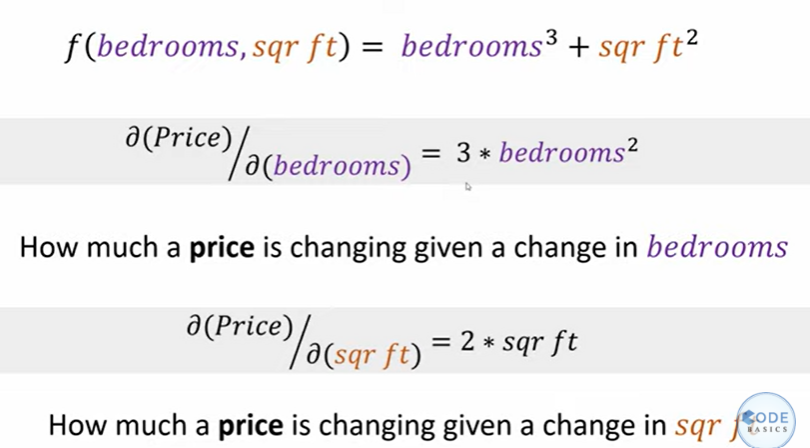
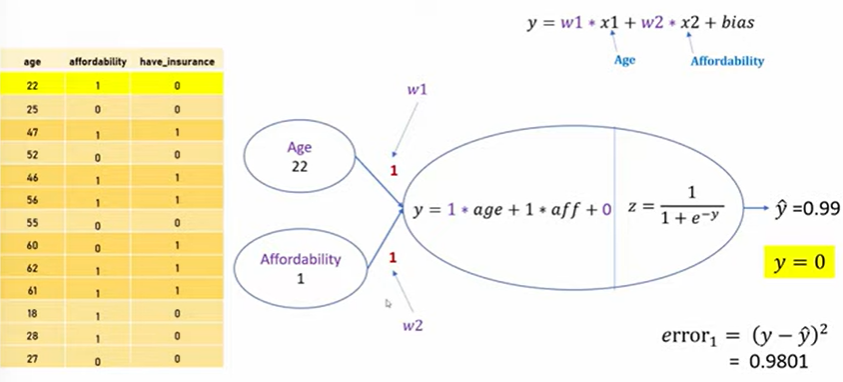
* Mathisfun.com website is a very good one for understanding math concepts.
* It easy to compute slope for a straight line
* 
* But for a non linear line slope is not same at every point
* 
* So, to find a slope at a particular point on the curve, we need to zoom into that point and then take the derivative
* 
* ***NOTE: Derivative and slope are similar but derivative is used for nonlinear equations***
* 
* Exercise: [https://github.com/codebasics/deep-le...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbVpHaEczVDN0WkFZdUQ1RFpwMjAycHBvYVdwUXxBQ3Jtc0ttQzQ0VE4zTEd2dHFRYy14dDdsejhCMzI1T2dXUDViekF4S3lSMkNOQlRoSjUwUERuWGJsYlpFdkszeGhqTXkwOWFHR2pRbFZabFBHLUtDU3p3QXo5Rm0zWDhUTlFoYkttYTd2ZUsxbFltYy1HNC0zZw&q=https%3A%2F%2Fgithub.com%2Fcodebasics%2Fdeep-learning-keras-tf-tutorial%2Fblob%2Fmaster%2F3_derivatives%2Fderivatives_exercise.md&v=cT4pQT5Da0Q)
* Derivatives: [https://www.mathsisfun.com/calculus/d…](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbnFXSVRNelJGRlNEUXR5czFGTmNVelp1NHhqd3xBQ3Jtc0tuemZkSzFyTGRpWktPYkpmMTBpRWdlblhqMVBCall0S1lhQk5EckpDaFBDSFhKZUk4b2pMcGlDaERacWFFYlk3NFR1T3RHek1zWkNuNmlrTkNjNGYzNjVFZ2E1Mmlzd3JEd1ZfUEhFMTBjc2FJXzh2MA&q=https%3A%2F%2Fwww.mathsisfun.com%2Fcalculus%2Fderivatives-introduction.html&v=cT4pQT5Da0Q)
* 

## Partial Derivative

* A derivative of a function of two or more variables with respect to one variable, the other(s) being treated as constant
* 

## Applicability to learn derivatives

* Example 1:
* 
* Example 2:
* 
* So, in the above image in order to reduce the value of error, the neural network adjusts the weight of affordability and Age. And neural network is all about adjusting the weights
* Finding the derivative error with respect to age or derivative of error with respect to affordability would tell us how error changes with small change in age or how error changes with small change in affordability