

WS-3 Tasks

1. Task 1:

- a. Explain the difference between closed-form analytical solution and GD?
- b. Why the gradient = 0 in the closed-form analytical solution?
- c. What's the difference between 'm' vector, 'θ' vector and '∇' vector.
- d. What does ∇ vector tells you?
- e. What does each element of the ∇ vector tells you?
- f. Run example 1 on paper for 4 iterations

2. Task 2: Run GD algorithm and find X and Y that minimizes the following function

$$f(x, y) = x^2 + \log(\text{SN})y^2$$

- SN: last two digits of your student number

3. Task 3:

- a. Solve task 3 of WS-2 using GD
- b. Compare both the solutions (equation and GD based)