

Name: Udobang, Odotekom Peter

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### Assignment III

- Command window
- Clear
- clc
- close all
- syms x, y, z, i, j, k
- $\text{phi} = x^{(2)} * y * z^{(3)} + x * y^{(2)} * z^{(2)}$
- $a = \text{diff}(\text{phi}, x)$
- $b = \text{diff}(\text{phi}, y)$
- $c = \text{diff}(\text{phi}, z)$
- $x = 1, y = 3, z = 2$
- $a_n = \text{subs}(a)$
- $b_n = \text{subs}(b)$
- $c_n = \text{subs}(c)$
- $a_{nn} = \text{subs}(a_n) * i$
- $b_{nn} = \text{subs}(b_n) * j$
- $c_{nn} = \text{subs}(c_n) * k$
- $\text{grad phi} = a_{nn} + b_{nn} + c_{nn}$ .