

NAME:	OTTUN OLUMIDE IFEOLUWA	ASSIGNMENT 3
MATRIC NO:	17/ENG04/065	
DEPARTMENT:	ELECT/ELECT ENGR	
COURSE:	ENGR MATHEMATICS	

* If $\phi = x^2 y z^3 + x y^2 z^2$, write a MATLAB m-file program to determine gradient point $P(1, 3, 2)$

1. Command window
2. clear
3. clc
4. Syms x, y
5. Syms z
6. $A = (x^2 * y * z^3) + (x * y^2 * z^2)$
7. $U = \text{diff}(A, x)$
8. $V = \text{diff}(A, y)$
9. $W = \text{diff}(A, z)$
10. $x = 1$
11. $y = 3$
12. $z = 2$
13. $U_n = \text{subs}(U)$
14. $V_n = \text{subs}(V)$
15. $W_n = \text{subs}(W)$