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Course code: ENG 282

If $V = x^2 y z^3 + x y^2 z^2$, write a MATLAB m-file program to determine grad V at point $P(1, 3, 2)$

Command window

Clear

Gbc

`syms x y z`

$$V = x^2 * y * z^3 + x * y^2 * z^2$$

$$a = \text{diff}(V, x)$$

$$b = \text{diff}(V, y)$$

$$c = \text{diff}(V, z)$$

$$G = a * i + b * j + c * k$$

$$x = 1$$

$$y = 3$$

$$z = 2$$

$$B = (y^2 * z^3 + 2 * x * y * z^3) * i + (x^2 * z^3 + 2 * y * x * z^2) * j + (y * z^2 + 2 * x * y^2 * z) * k$$