EE202 Numerical Methods for Engineers
Laboratory Assignment: 11

** Find solutions of the following questions in Matlab:

Question 1:

Use the steepest descent direction to find the minimum of $f(x_1, x_2) = 25x_1^2 + x_2^2$ starting at $x^{(0)} = \begin{bmatrix} 1 & 3 \end{bmatrix}^T$ with a step size of $\alpha = 0.5$.

Question 2:

Using the steepest descent direction, find the minimum of $f(x_1, x_2) = 3x_1^2 + 2x_2$ starting at $x^{(0)} = \begin{bmatrix} 1 & 2 \end{bmatrix}^T$ with a step size of $\alpha = 0.5$.