CSE-5368-001Neural Networks
Spring 2023 Quiz 02

1. Consider the following performance surface:

$$
F(X)=x_{1}^{2}+3 x_{1} x_{2}
$$

Calculate the first directional derivative of this function at point $(1,2)$ in the direction of $(3,-4)$

First directional derivative $=$ $\qquad$

