## Partial Derivatives

## Question

In economics, the production $P(L, K)$ of a sector is modelled by a function of labor $L$ and capital $K$. Suppose that at a labor level of 10 thousand hours of work and a capital investment of $\$ 5$ million, $P(10,5)$ is $\$ 20$ million of goods and $P_{L}(10,5)=0.7$. Which of these is NOT true?
A. If Labor is increased from 10 thousand to 11 thousand hours of work while capital investment remains the same, then we expect production to increase by about $\$ 0.7$ million in goods.
B. If Labor is increased from 10 thousand to 11 thousand hours of work while capital investment remains the same, then we expect production to be about $\$ 0.7$ million in goods.
C. $P(11,5) \approx 20.7$

