Except from an exam.

Answer just by saying True or False.

Let \( f : \mathbb{R}^2 \to \mathbb{R} \). If \( f \) is continuous at some point \( (x, y) \in \mathbb{R}^2 \), then its partial derivatives at \( (x, y) \) exist, although they may be discontinuous at \( (x, y) \).

Correct answer: FALSE

if we change continuous by differentiable, then it would be true.