

## Quiz 5, MAT329, Fall 2015

Name: \_\_\_\_\_

- What conditions guarantee differentiability of  $f$  at  $(a, b)$ ?
- How is the gradient of  $f(x, y)$  defined?
- What does the **direction** of the gradient tells us?
- How is the directional derivative in the direction of unit vector  $\hat{u}$  calculated?