

Formulas in Quiz #3

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$$\text{ind}(x, y) = \begin{cases} 1, & \text{if distance between } (x, y) \text{ and } (x_c, y_c) \text{ is less or equal than } r, \\ 0, & \text{if distance between } (x, y) \text{ and } (x_c, y_c) \text{ is greater than } r. \end{cases} \quad (1)$$

$$\text{area} = \int_0^4 \int_0^4 \text{ind}(x, y) \, dx \, dy \quad (2)$$

$$\text{area} \approx \frac{16}{N} \sum_{i=1}^N \text{ind}(x_i, y_i) \quad (3)$$