

KFUPM

MATH102

Quiz#1 Sec. 27

Name _____

Sr.# _____

$$1) \lim_{n \rightarrow \infty} \sum_{i=1}^n \frac{1}{n} \cos \left(1 + \frac{i}{n}\right)^2 =$$

a) $\int_1^2 \cos(x^2) dx$ b) $\int_1^2 \cos(1 + x^2) dx$ c) $\int_0^1 \cos(x^2) dx$

$$2) \text{ Evaluate } \int_0^3 (1 + \sqrt{9 - x^2}) dx$$

3) Evaluate $\lim_{x \rightarrow \infty} \sum_{i=1}^n \left(\frac{2i^2}{n^3} - \frac{1}{n} \right)$

