



Bilkent University

Quiz # 07  
Math 102 Section 08 Calculus II  
25 March 2024 Monday  
Instructor: Ali Sinan Sertöz



Name & Lastname: .....

Department: .....

Student ID: .....

**Q-1)** Using the Squeeze Theorem, find  $\lim_{(x,y,z) \rightarrow (0,0,0)} \frac{x^3 y^2 z^5}{x^2 + y^4 + z^6}$ .

**Q-2)** Find  $\lim_{(x,y,z) \rightarrow (0,0,0)} \frac{xy^2 z^3}{x^2 + y^8 + z^{12}}$ .

**Q-3)** Find  $\lim_{(x,y) \rightarrow (0,0)} \frac{x^3 y^4 + x^4 y^3}{(x^2 + y^2)^3}$ .

*Show your work in detail. Correct answers with no justification will not get any credit.*

Grading: 3+3+4=10 points

**Solution:** (Grader: melis.gezer@bilkent.edu.tr)