



Bilkent University

Quiz # 09  
Math 101-Section 05 Calculus I  
23 November 2023 Thursday  
Instructor: Ali Sinan Sertöz



Name & Lastname: .....

Department: .....

Student ID: .....

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**Q-1)** Consider the curves  $y = x^2$  and  $y = 6 - x$ .

- (a) Set up the integral which gives the area of the region between these curves on  $[-3, 6]$ .
- (b) Set up the integral which gives the volume of the solid obtained by revolving the region of part (a) around the  $x$ -axis.
- (c) Set up the integral which gives the volume of the solid obtained by revolving around the  $y$ -axis the region between these curves on  $[-3, 0]$ .
- (d) Evaluate one of the above integrals.

Grading: 3+3+3+1=10 points

**Solution:** (Grader: `taha.yigit@ug.bilkent.edu.tr`)