

**Quiz –3, MAT 120 (Calculus I), Fall 2020, Section -4,****Date:** 07/01/2021**Name:****Student ID:****Marks:** 15**Time:** 25 min

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1. Sketch the region whose area is represented by the definite integral, and evaluate the integral using (i) an appropriate formula from geometry and (ii) by integration.

$$(i) \int_1^4 2 \, dx \qquad (ii) \int_{-1}^3 (x + 2) \, dx$$

2. Find the area of the circle of radius  $r = a$  by integration.