Student ID:

Student Name:

Serial Number:

MATH201, Section 2
Fall 2018, Term 181

Quiz 7
Version A

Instructions: Show Your Work!

1. (5 pts) Using triple integral, find the volume of the solid bounded by the $xy-$plane, the planes $z = 1 + x, x = 1, x = 2$ and the cylinders $y = \pm 1/x$.

2. (5 pts) Using spherical coordinates, evaluate

$$\iiint_E \sqrt{x^2 + y^2 + z^2}\, dV,$$

where E lies above the cone $z = \sqrt{x^2 + y^2}$ and between the spheres $x^2 + y^2 + z^2 = 1$ and $x^2 + y^2 + z^2 = 4$.

Student ID:

Student Name:

Serial Number:

MATH201, Section 3
Fall 2018, Term 181

Quiz 7
Version B

Instructions: Show Your Work!

1. (5 pts) Using triple integral, find the volume of the solid whose base is the region in the first quadrant of the $xy-$plane enclosed by the curves $y = x, y = x/4$, and $y = 1/x$ while the top of the solid is bounded by the plane $z = x + 4$.

2. (5 pts) Using cylindrical coordinates, evaluate

$$\iiint_E x dV,$$

where E is enclosed by the planes $z = 0$ and $z = x+y+5$ and by the cylinders $x^2 + y^2 = 4$ and $x^2 + y^2 = 9$.