

**Math 201-07 Quiz 4 Term 122**

**Exercise:** Evaluate

$$I = \iint_R (6x^2y^3 - 5y^4) dA$$

where

$$R = \{(x, y) \mid 0 \leq x \leq 3, 0 \leq y \leq 1\}$$

**Exercise:** Find the volume of the solid that lies under the paraboloid  $z = x^2 + y^2$  and above the region  $D$  in the  $xy$ -plane bounded by the line  $y = 2x$  and the parabola  $y = x^2$ . Draw the region  $D$ .