MATH 261 Quiz 10 Name: .
Student number:

Show all work. 5 points each.

1) Evaluate the integral $\iint_R cos(x^2 + y^2)dA$ where R is the region that lies above the $x - axis$ and within the circle $x^2 + y^2 = 9$. Hint: Change to polar coordinates.

2) Find the Jacobian of the transformation $x = u + 4v$, $y = 3u - 2v$.