MATH 515 Quiz 2 Name: .
Student number:

Show all work. 5 points each.

1. Evaluate $\frac{1}{2\pi i}\oint_C \frac{e^{z^2}}{(z-i)^2}dz$ where C is the circle $|z-1|=2$. Is the pole inside the circle?

2. Evaluate $\frac{1}{2\pi}\int_0^{2\pi} e^{\pi i + e^{i\theta}}d\theta$. Conclude that $\int_0^{2\pi} e^{\cos(\theta)}\sin(\sin(\theta))d\theta = 0$.