

Quiz No.5 Math 301;  
number: \_\_\_\_\_

Name: \_\_\_\_\_ ID

$$\text{Solve } u_{rr} + \frac{2}{r}u_r + \frac{1}{r^2}u_{\vartheta\vartheta} + \frac{\cot \vartheta}{r^2}u_{\vartheta} = 0, \quad 0 < r < 2, 0 < \vartheta < \pi, \text{ with } u(2, \vartheta) = 1.$$