Phys 652 Winter 2024

## Worksheet #8

Friday, February 9, 2024

Name

## Question (5 pts):

Using the relation  $e^{-i(\varphi/2)\boldsymbol{\sigma}\cdot\mathbf{n}} = I\cos\frac{\varphi}{2} - i\boldsymbol{\sigma}\cdot\mathbf{n}\sin\frac{\varphi}{2}$ , find  $e^{-i(\beta/2)\sigma_y}$ .