

## 1 Polar vs. Spherical Coordinates

Show that the plane polar coordinates are equivalent to spherical coordinates if we make the choices:

- (a) The direction of  $\theta = 0$  in spherical coordinates is the same as the direction of out of the plane in plane polar coordinates.
- (b) Given the correspondance above, then if we choose the  $\theta$  of spherical coordinates is to be  $\pi/2$ , we restrict to the equatorial plane of spherical coordinates.