

Each small group is assigned a spherical harmonic from the list below:

1.  $Y_1^1$

2.  $Y_1^0$

3.  $Y_1^{-1}$

4.  $Y_2^1$

5.  $Y_2^0$

6.  $Y_2^{-1}$

Using a tiny Argand diagram, represent the value of the spherical harmonic at:

- at the equator ( $\theta = \pi/2$ ) for  $\phi = 0, \frac{\pi}{4}, \frac{\pi}{2}, \frac{3\pi}{4}, \pi, \frac{5\pi}{4}, \frac{3\pi}{2}, \frac{7\pi}{4}$
- repeat for  $\theta = \frac{\pi}{6}, \frac{\pi}{3}, \frac{2\pi}{3}, \frac{5\pi}{6}$

Tip: Make reference marks in black and draw the complex value of the spherical harmonic in a different color.