

1. Compute $\rho_{O, \frac{2\pi}{3}} \rho_{[0], \pi}^2$ explicitly.
2. Compute $\rho_{O, \frac{\pi}{2}} \rho_{[0], -\frac{\pi}{2}}^2$ explicitly.
3. Compute $\tau_{O, [2]} \rho_{O, \frac{\pi}{2}}$ explicitly.
4. Let ℓ be the line $y = 0$ (the x -axis), and m the line $y = \frac{1}{\sqrt{3}}x$. Compute $\sigma_m \sigma_\ell \sigma_m$ explicitly.
5. Let ℓ be the line $y = 2x + 3$, m the line $y = 2x - 1$, and n the line $y = -\frac{1}{2}x$. Calculate the following explicitly:
 - a) $\sigma_n \sigma_\ell$
 - b) $\sigma_n \sigma_m$
 - c) $\sigma_m \sigma_\ell$.