

HW 22 Spring 23 Final Answers

Note: Show All Sketches! Both 2-D and separate 3-D

1. 8π

2. 27π

3. $\pi \int_0^1 1 - (x^2)^2 dx = \pi \int_0^1 1 - x^4 dx$ STOP here

4. (a) $3\ln 3 - 2$

(b) $\pi \int_0^{\ln 3} 4^2 - (e^x + 1)^2 dx$ STOP here

5. $\pi \int_0^{\frac{\pi}{4}} (\cos x + 1)^2 - (\sin x + 1)^2 dx$ STOP here