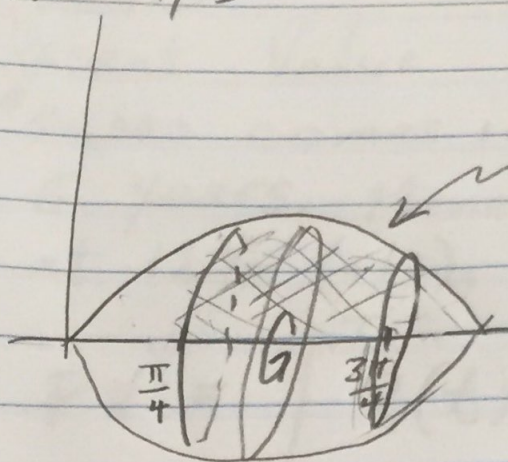


HW 4/13



$$y = \sin x$$
$$\frac{\pi}{4} \leq x \leq \frac{3\pi}{4}$$

Shaded area
rotated about
x-axis

$$\boxed{\text{Hint: } \sin^2 u = \frac{1}{2} - \frac{\cos 2u}{2}}$$

HW 4/13

Present Value

\$40,000 comes in each yr. for 5 years. Money can be invested at 12% (.12).

$$P.V. = \int_0^T R(t) e^{-rt} dt$$

T = Term of cash flow (= 5)

r = interest rate as decimal

$R(t)$ = function describing cash flow

\$40,000/yr

Calculate the Present Value (PV) using the formula above.