Math 106, Spring 2025

Homework #15

Due **Wednesday, April 2nd** in Gradescope by 11:59 pm ET

Goal: Solidify Area Between Curves

For each of the following 1-6,

- Compute the area of the described bounded region, enclosed by the given curves.
- Sketch the curves and shade the bounded region.

1. $y = x + 1$ and $y = 9 - x^2$, between $x = -1$ and $x = 2$

2. $y = \sin x$ and $y = x$, between $x = \dfrac{\pi}{2}$ and $x = \pi$

3. $y = (x - 2)^2$ and $y = x$

4. $y = \cos x$ and $y = 2 - \cos x$, between $x = 0$ and $x = 2\pi$

5. $y = x^3$ and $y = x$

6. $y = |x|$ and $y = x^2 - 2$

REGULAR OFFICE HOURS

Monday: 12:00–3:00 pm

7:30–9:00 pm TA Andrew, SMUDD 207

Tuesday: 1:00–4:00 pm

Wednesday: 1:00-3:00 pm

Thursday: none for Professor

8:00–9:30 pm TA Andrew, SMUDD 208A

Friday: 12:00–2:00 pm

- Last month, make a new final push.