

Math 106, Spring 2026

**Homework #15**

Due **Wednesday, April 1st** 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  $x = \frac{\pi}{2}$  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**

**Tuesday: 1:00–4:00 pm**

7:30–9:00 pm TA Uchenna, SMUDD 208A

**Wednesday: 1:00-3:00 pm**

**Thursday: none for Professor**

4:00–5:30 pm TA Uchenna, SMUDD 208A

**Friday: 12:00–2:00 pm**

- Last month, make a new final push.