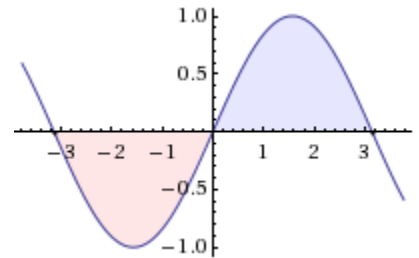# **Area Integration Problems** *2020* *(hand-in)*

What does **Net** area mean? Draw a diagram.

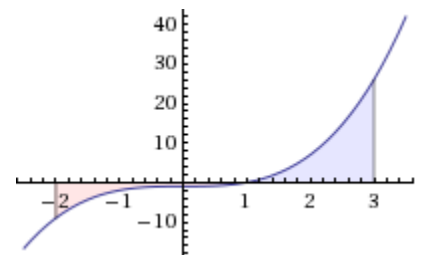What does **Gross** area mean? Draw a diagram

Find the area described in the following questions:

1. The **Net** area between $\sin x$ and the x-axis from $-\pi \ to \ \pi$
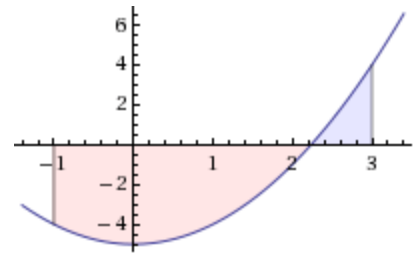   (show your work)

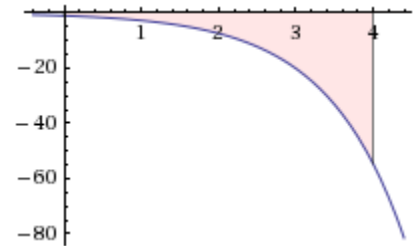2. The **Gross** area between $\sin x$ and the x-axis from $-\pi \ to \ \pi$

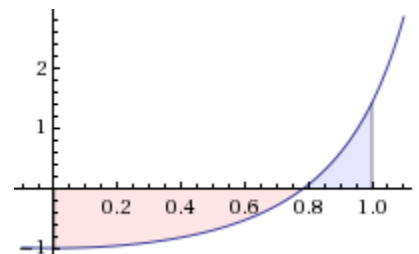3. Find both the **Gross/Net** area between $f(x) = -1 + x^3$ from -2 to 3

4. Find the Gross/Net area between $f(x) = x^2 - 5$ from -1 to 3

5. Find the Net area between $f(x) = -e^x$ from 0 to 4

6. Find the Net area between $f(x) = (\sec x)^2 - 2$ from 0 to 1

+ must do Workbook: pg. 302 1-8 (staple to this sheet) - they are looking for **"gross"** area. You have to calculate the x-intercept for each.