

I'm switching the reading and exercises order on the assignment today because I want you to do the exercises before you do the reading. ☺

## Part II: Exercises (prepare for class Friday, January 19)

Examples 2 and 3 on the Volumes of Solids handout.

## Part I (due at the beginning of class Friday, January 19)

Fill in the blanks/blank spaces as you read through page 3 of the Volumes of Solids handout (the section headed "In General"). This serves as your reading questions for this assignment.

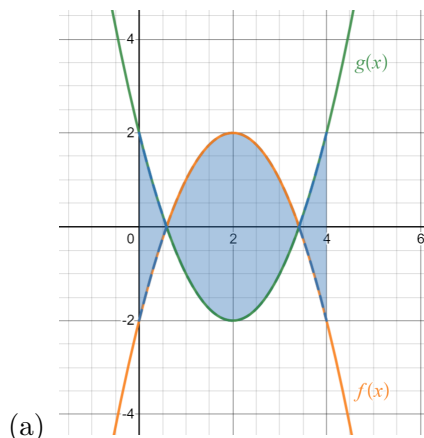
Remember that what you turn in for Part I should have 3 parts, as mentioned in the syllabus:

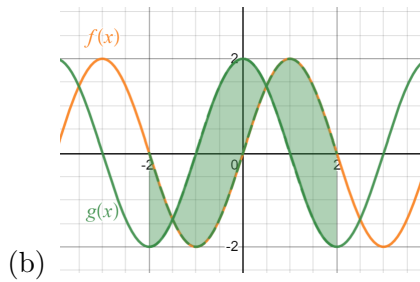
- (a) Your responses to the reading questions below.
- (b) Your own questions/comments on the reading.
- (c) The amount of time you spent on Part I (including the time spent reading).

## Part III: Homework Problems (due Wednesday, January 26 at the beginning of class)

Review the guidelines and Sample Homework in the syllabus to make sure your Part III solutions follow them.

- For each of the following graphs, express the area of the shaded region with definite integrals that do not involve absolute values. You do not need to find expressions for the functions, and you can estimate the intersection points from the graphs.





2. The base of a solid is the region bounded by the graphs of  $y = \sqrt{x}$  and  $y = \frac{x}{2}$ . Find the volume of the solid if its cross sections perpendicular to the  $x$ -axis are
- isosceles triangles of height 6.
  - semi-circles with diameters that run across the base of the solid.

### mini-Celebration of Learning Friday

There will be a problem for Learning Target G1 (area between curves).