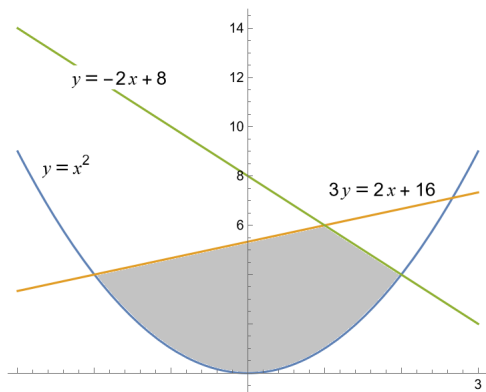
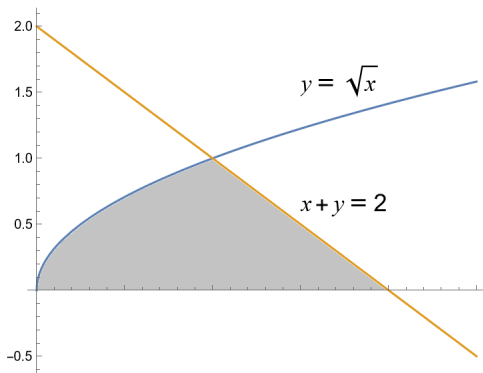


## Worksheet 1/9/2025

1) Express the shaded area as an integral and then evaluate it.



2) Express the shaded area as an integral and then evaluate it.



3) Find the volume of the solid obtained by rotating the region bounded by the curves  $y = 6 - x^2$  and  $y = 2$  about the  $x$ -axis.

4) Find the volume of the solid obtained by rotating the region bounded by the curves  $y = \sin x$  and  $y = \cos x$ , where  $0 \leq x \leq \pi/4$ , about the line  $y = -1$ .