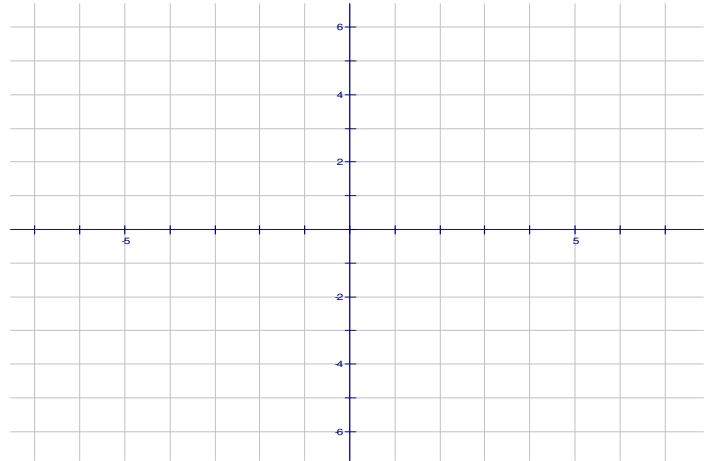
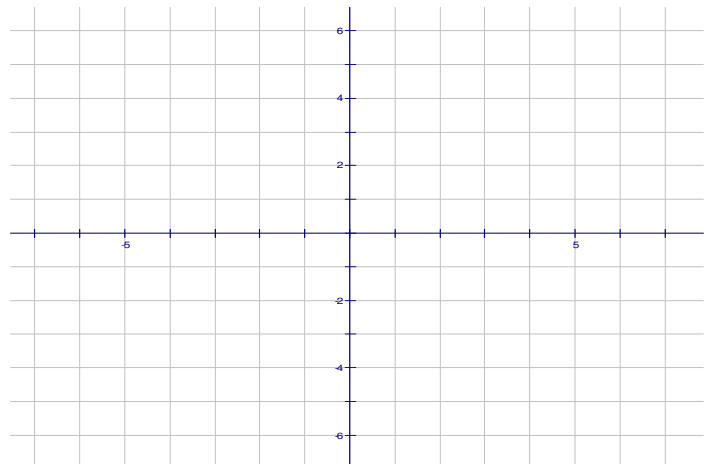


1. The integrand of the definite integral is a difference of two functions. Sketch the graph of each function and shade the region whose area is represented by the curve.

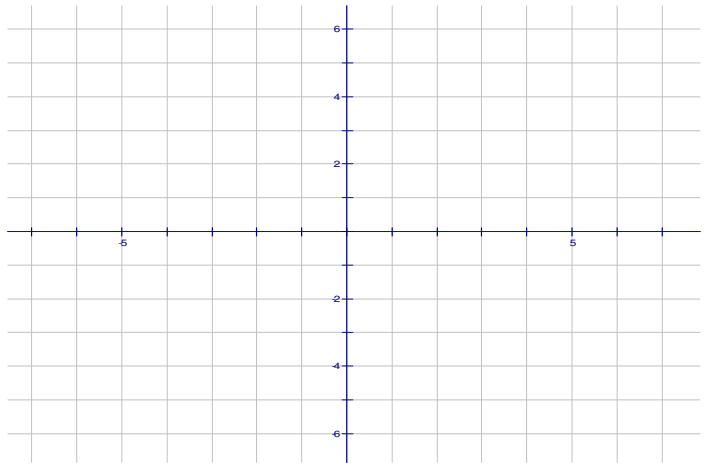
a. $\int_{-\pi/4}^{\pi/4} (\sec^2 x - \cos x) dx$



-
2. Find the area of the region between the graphs of $f(x) = 3x^3 - x^2 - 10x$ and $g(x) = -x^2 + 2x$.



3. Sketch the region bounded the graph of $y = \cos x$, $x = 0$, and $x = \frac{\pi}{2}$.



4. Sketch the region bounded the graph of $y = 3^x$ and $y = 2x + 1$.

