CALCULUS
Area between curves: Problems
NEW
Compute the shaded area shown in the picture below.
Let $R$ be the region enclosed inside $y = e^{-x}$, $y = x^2$, $x = -0.5$ and $x = 0.5$.

a. Sketch the region $R$.
b. Compute the area of the region $R$.

Let $R$ be the region enclosed inside $y = 2 \sin(\pi x/6)$, $y = x$ and $x \geq 0$.

a. Sketch the region $R$.
b. Compute the area of the region $R$.

Let $R$ be the region enclosed inside $y = x^2$ and $y = 2x + 8$.

a. Sketch the region $R$.
b. Compute the area of the region $R$. 
Let \( f(x) = e^{-x^2/10} \) and let \( g(x) = -x \). Estimate the area of the region bounded by \( y = f(x), \ y = g(x), \ x = 2 \) and \( x = 8 \) by computing \( R_3 S_2^8 (f - g) \).