A region is bounded by the curves $y = x^2$ and $y = 2x + 3$.

Find the area of this region by following the steps below.

1. Graph both the curves on the axes above and shade in the region in question. Be sure to label your axes.

2. Use the $x$-axis as the axis of integration.

3. Draw a typical slice in the region that agrees with the axis of integration.

4. Correctly label the height and width of your slice in the above figure.

5. Write a formula for the area of your slice.

6. Write an integral for the total shaded area. Enter your answer in WebAssign.