

SECTION 2.3: VOLUMES OF REVOLUTION USING CYLINDRICAL SHELLS  
DAY 2

1. In the space below, write the formula for the Cylindrical Shells Method with accompanying formulas. Assume we are integrating with respect to  $x$ .

2. Sketch the region  $R$  above the  $x$ -axis that is bounded by  $y = \sqrt{x+2}$  and  $y = x$ . We want to determine the volume of the solid obtained by rotating  $R$  about the  $x$ -axis.

(a) Set up the integral(s) for the volume assuming you are using the Disk/Washer Method.

(b) Set up the integral(s) for the volume assuming you are using the Shell Method.