

$$\begin{aligned}
f(x) &= \sqrt{x+1} \quad I[-1; 2] \\
V &= \pi \times \int_b^a (f(x))^2 dx \\
&= \pi \times \int_{-1}^2 (\sqrt{(x+1)})^2 dx \\
&= \pi \times \int_{-1}^2 (x+1) dx \\
&= \pi \times \left[\frac{1}{2} \times x + x \right]_{-1}^2 \\
&= \pi \times \left(\frac{1}{2} \times 2 + 2 - \left(\frac{1}{2} \times (-1) - 1 \right) \right) \\
&= \pi \times \left(3 - \left(-\frac{3}{2} \right) \right) \\
&= \pi \times \left(3 + \frac{3}{2} \right) \\
&= \pi \times \left(\frac{9}{2} \right) \\
&\approx 14.14
\end{aligned} \tag{1}$$