

Solutions

Each answer shows the steps, then the **result**.

2.1

- $R = |f(x) - 3|$

2.2

- $R = 2 - (-1) = 3$

2.3

- $x + 2\sqrt{x} + 1$

3.1 B

- the radius is the distance $f(x) - k$ to the line

3.2

(a)

- $R = x^2 - (-1) = x^2 + 1$

(b)

- $\pi \int_0^2 (x^2 + 1)^2 dx$

3.3

- $R = 2 - \sqrt{x}; V = \pi \int_0^4 (2 - \sqrt{x})^2 dx$