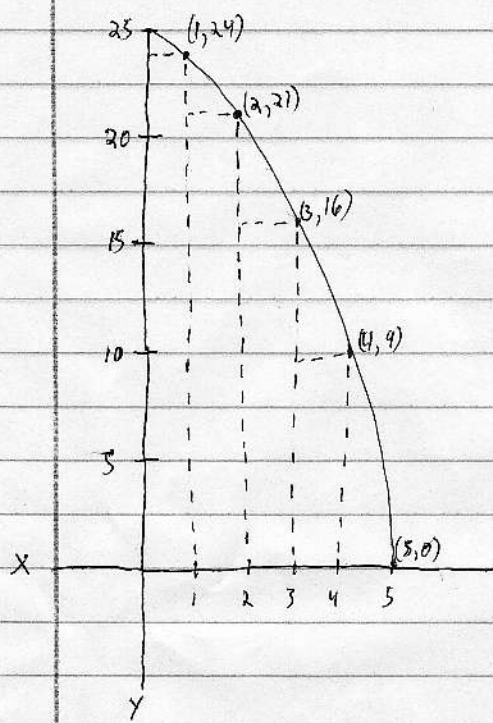


$$f(x) = 25 - x^2$$

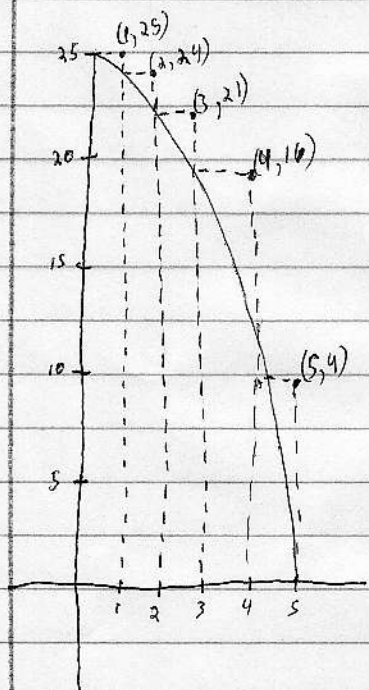


$$\begin{aligned} f(1) &= 25 - (1)^2 \\ f(1) &= 24 \\ f(2) &= 25 - (2)^2 \\ f(2) &= 21 \\ f(3) &= 25 - (3)^2 \\ f(3) &= 16 \\ f(4) &= 25 - (4)^2 \\ f(4) &= 9 \\ f(5) &= 25 - (5)^2 \\ f(5) &= 0 \end{aligned}$$

$$A_R = (1 \cdot 24) + (1 \cdot 21) + (1 \cdot 16) + (1 \cdot 9) + (1 \cdot 0)$$

$$A_R = 70 \text{ (underestimate)}$$

(right endpoints)



$$A_L = (1 \cdot 25) + (1 \cdot 24) + (1 \cdot 21) + (1 \cdot 16) + (1 \cdot 9)$$

$$A_L = 95 \text{ (overestimate)}$$

$$70 < A < 95$$

(left endpoints)