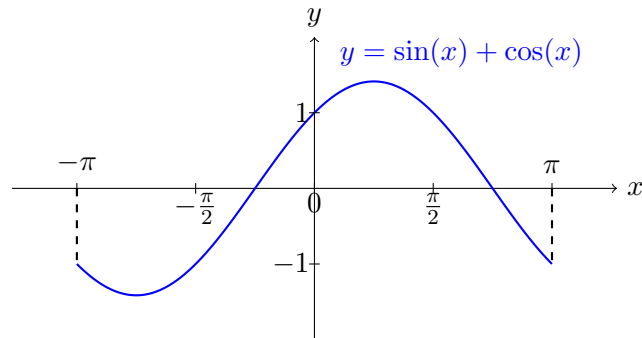


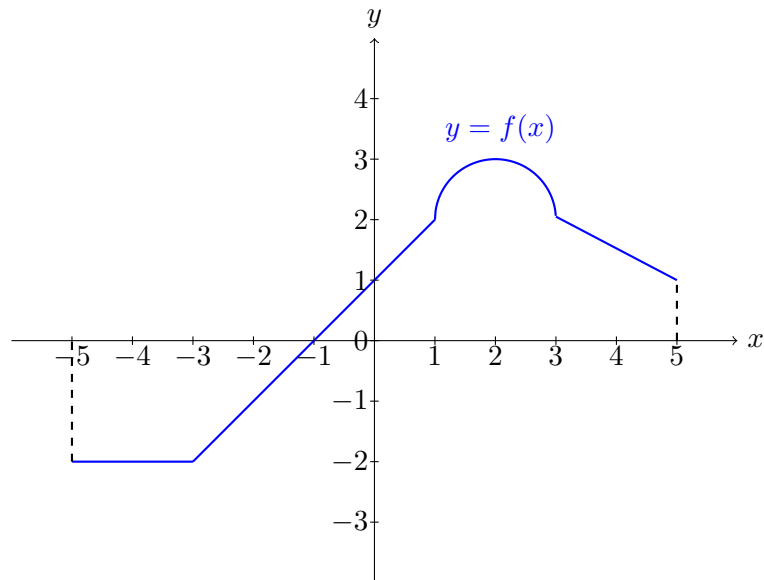
**Ex 1.** Below is the graph of the function  $f(x) = \sin(x) + \cos(x)$  on the interval  $[-\pi, \pi]$ .



a) On the graph above, draw the rectangles associate to the left Riemann sum with  $n = 4$ .

b) Approximate  $\int_{-\pi}^{\pi} \sin(x) + \cos(x) dx$  using the left Riemann sum with  $n = 4$ .

**Ex 2.** Let  $f$  be the function whose graph is the following:



Compute  $\int_{-5}^5 3f(x) - 2\sqrt{25 - x^2} dx$ .