## Worksheet: Use the fundamental theorem of calculus!

1.

$$\int_{-4}^{3} \frac{\sin t}{3} - \frac{t^{2/3}}{4} \, dt$$

**2.** Find the average value of  $f(z) = \sec^2 z$  over the interval  $[0, \pi/3]$ . Then draw the picture to show that the answer is reasonable.

**3.** Draw the area and compute it:

$$A = \int_{-2}^{2} 3^{-x} \, dx$$

. Draw the area and compute it:

$$A = \int_2^5 \frac{2}{t} \, dt$$