1. Consider the integral $\int_0^{\pi} \sin(x)\, dx$.

   Write L_{20} and R_{20} using sigma notation.

2. Find the definite integral approximated by the left sum

$$L_{50} = \frac{3}{50} \sum_{i=0}^{49} \left(\frac{3i}{50} \right)^2$$

   What is the value of the integral?

Recap for Today

- Riemann sums can be used to find a numeric approximation for an integral.

  This is especially useful if we cannot find an antiderivative.

- The more subdivisions we take in the approximating sum, the more accurate the approximation will be.