Comparison of Monte Carlo and Numerical Integration

Legend:
- Gaussian Quadrature Integral
- Trapezoidal Integral
- Original Integral, $\int_{-1}^{1} x\sin(\pi * x)\,dx = \frac{2}{\pi} = 0.63$
- Monte Carlo Integration 200
- Monte Carlo Integration 500

X-axis: Number of Intervals

Y-axis: True and Estimated Integral Values