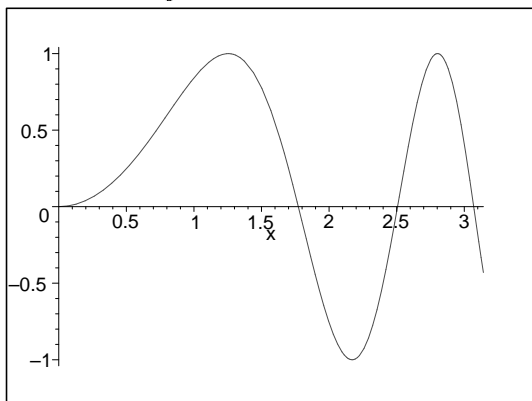
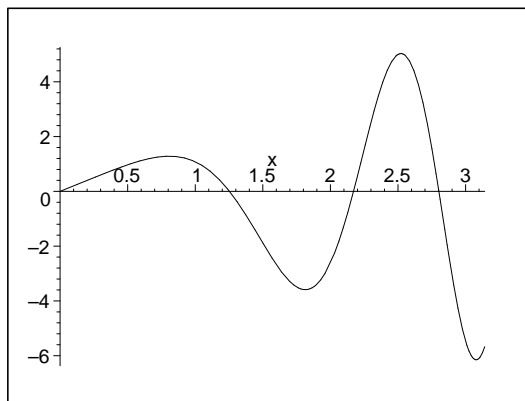


Let $I = \int_0^{\pi} \sin(x^2) dx$.



$y = \sin(x^2)$



$y = \cos(x^2) 2x$

1. How close will L_{500} approximate I ? R_{500} ?
2. Find a value of n so that L_n will approximate I within 0.001 of its actual value.