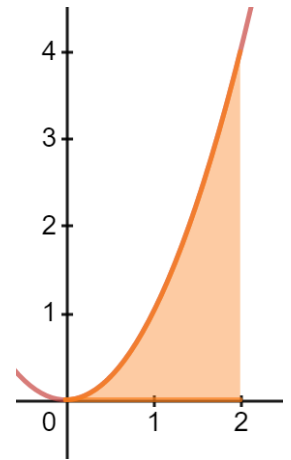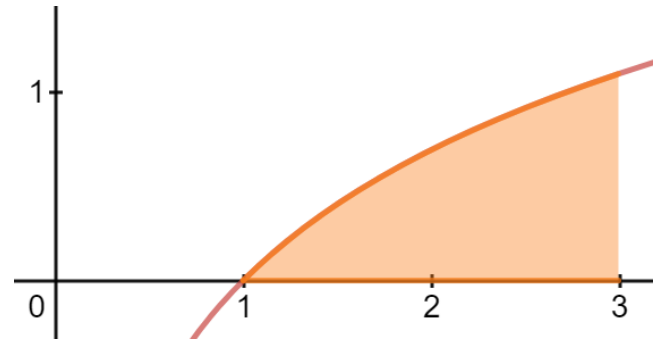# Area Approximation Practice

Approximate the following areas using all four methods. Write the sigma notation for the sum.

1. $f(x) = x^2$ on $[0, 2]$ using 4 subintervals

2. $f(x) = \ln x$ on $[1,3]$ using 8 subintervals

3.  $f(x) = \frac{1}{x^2+1}$ on $[-3, 3]$ using 6 subintervals.