

Problems. January 29.

1. Find the Taylor series for $f(x) = 3^x$ at $x = 1$.
2. Find the Taylor series for $f(x) = \ln(2 + x)$ at $x = 1$.
3. Find the Taylor polynomial of order 3 for $f(x) = \tan x$ at $x = 0$.
4. Find the Taylor polynomial of order 4 for $f(x) = e^x \cos x$ at $x = 0$.