

TAYLOR'S THEOREM

Expand the following functions:

1. If $y = \sin x$ in the powers of $\left(x - \frac{\pi}{2}\right)$
2. If $y = \cos x$ in the powers of $\left(x - \frac{\pi}{2}\right)$
3. If $y = \ln x$ in the powers of $(x - 2)$
4. If $y = e^{ax}$ in the powers of $(x - 1)$

MACLAURIN'S SERIES

Expand the followings in powers of x :

1. If $y = e^x$
2. If $y = \sin x$
3. If $y = \cos x$
4. If $y = \ln(1 \pm x)$