

NAME :

Type of Calculator :

1. Use extrapolation on forward differences to compute a third order approximation for the derivative of $\cos(x)$ at $\frac{\pi}{4}$. Start with $h = 0.1$ and decrease h at a rate of $r = 0.01$. Work with 10 decimal places.

2. Consider $R = \frac{4x^2+3x+2}{2x^2+1}$. Convert R into a continued fraction form. Count the number of arithmetical operations needed to evaluate R , before and after the conversion.