

1. Let $f(x) = e^x$

(a) Find $P_5(x)$, the Maclaurin polynomial of degree 5 at $x = 0$

(b) Use your Maclaurin polynomial to approximate e^1

2. Let $f(x) = \cos(x)$

(a) Find $P_8(x)$, the Maclaurin polynomial of degree 8 at $x = 0$

(b) Use your Maclaurin polynomial to approximate $\cos(2)$