3
b

$$P_n(x) = a_0 + a_1(x - x_0) + a_2(x - x_0)(x - x_1) + \cdots$$
$$\cdots + a_n(x - x_0)(x - x_1)\cdots(x - x_n)$$

$$= f(x_0) + \frac{f(x_1) - f(x_0)}{x_1 - x_0}(x - x_0) + \frac{f(x_0) - f(x_1)}{x_2 - x_1}(x - x_1) +$$
$$\cdots + \frac{f(x_3) - f(x_2)}{(x_3 - x_2)}(x - x_2)$$

$$= e^0 + \frac{e^1 - e^0}{1 - 0}(x - 0) + \cdots$$
$$\cdots + \frac{e^2 - e^1}{2 - 1}(x - 1) + \cdots$$
$$\cdots + \frac{e^4 - e^2}{4 - 2}(x - 2)$$

! VERIFY FINAL ART.
! CHECK LATEST TIME 2 SUBMIT HWS

$f(x) = e^x$, $x_0 = 0$, $x_1 = 1$, $x_2 = 2$, $x_3 = 4$

20-26
LECTURES
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