

5

SHOW THAT

\sum^n

EXAMPLE FOR NEWTON'S

FORM OF INT POLY DEG 2 (?)

VS.

WITH $n = 0$

HERE $a_n = \frac{f(x_n) - p_{n-1}(x_n)}{(x_n - x_0)(x_n - x_1) \dots (x_n - x_{n-1})} = a_0 = f[x_0, x_1, \dots, x_n]$ WITH $n = 0$

WHERE $=$ SEE TO BE $\rightarrow a_0 = f[x_0]$

$= \frac{f(x_0) - p_{-1}(x_0)}{(x_0 - x_0)}$

HERE IS THE EXAMPLE:

$$P_n(x) = a_0 + a_1(x - x_0) + a_2(x - x_0)(x - x_1) + \dots + a_n(x - x_0)(x - x_1) \dots (x - x_{n-1})$$

$$[n=1] \dots x_0, x_1 \sim f[x_0, x_1] = a_1 (\dots?)$$

$$p_1(x) = \underbrace{f(x_0)}_{a_0} + \underbrace{\frac{f(x_1) - f(x_0)}{x_1 - x_0}}_{a_1} \cdot (x - x_0)$$

DON'T
TO DISMISS
ERROR TERM

→ WHAT
SHOULD I DO?
PRESENT &
SUB AFTER
YOU CALL

CALL PROF @
8 AM P.T.