

$$(0, 1043)$$

$$(2500, 747)$$

$$(500, 540)$$

$$(10000, 226)$$

$$x = 3750$$

$$p(x) = \sum_{i=0}^3 y_i L_i(x)$$

$$L_i(x) = \prod_{\substack{j=0 \\ j \neq i}}^3 \frac{x - x_j}{x_i - x_j}$$

$$L_0(3750) = \frac{(3750 - 2200)(3750 - 5000)(3750 - 10000)}{(0 - 2500)(0 - 5000)(0 - 10000)} = -0,078125$$

$$L_1(3750) = \frac{(3750 - 0)(3750 - 5000)(3750 - 10000)}{(2500 - 0)(2500 - 5000)(2500 - 10000)} = 0,625$$

$$L_2(3750) = \frac{(3750 - 0)(3750 - 2500)(3750 - 10000)}{(5000 - 0)(5000 - 2500)(5000 - 10000)} = 0,46875$$

$$L_3(3750) = \frac{(3750 - 0)(3750 - 2500)(3750 - 5000)}{(10000 - 0)(10000 - 2500)(10000 - 5000)} = -0,015625$$

$$p(3750) = 1043 \cdot (-0,078125) + 747 \cdot 0,625 + 540 \cdot 0,46875 + 226 \cdot (-0,015625)$$

$$p(3750) = -79,140625 + 466,875 + 253,125 - 3,53125$$

$$p(3750) = 677,33 \text{ kPa}$$