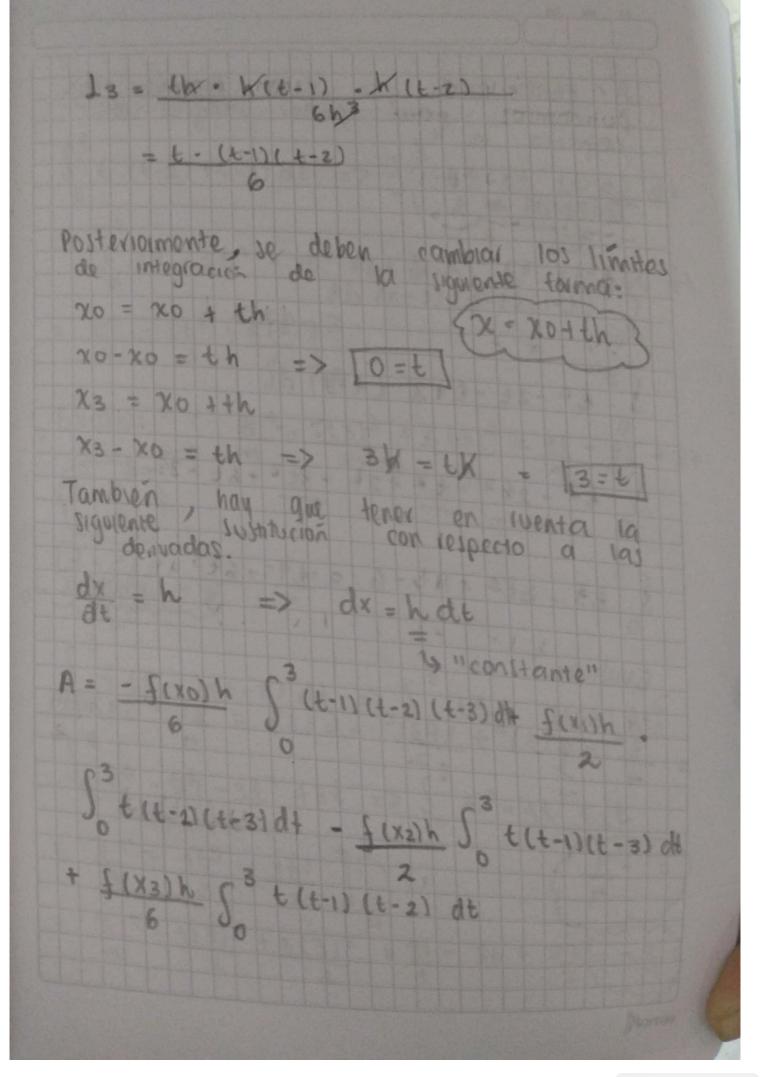
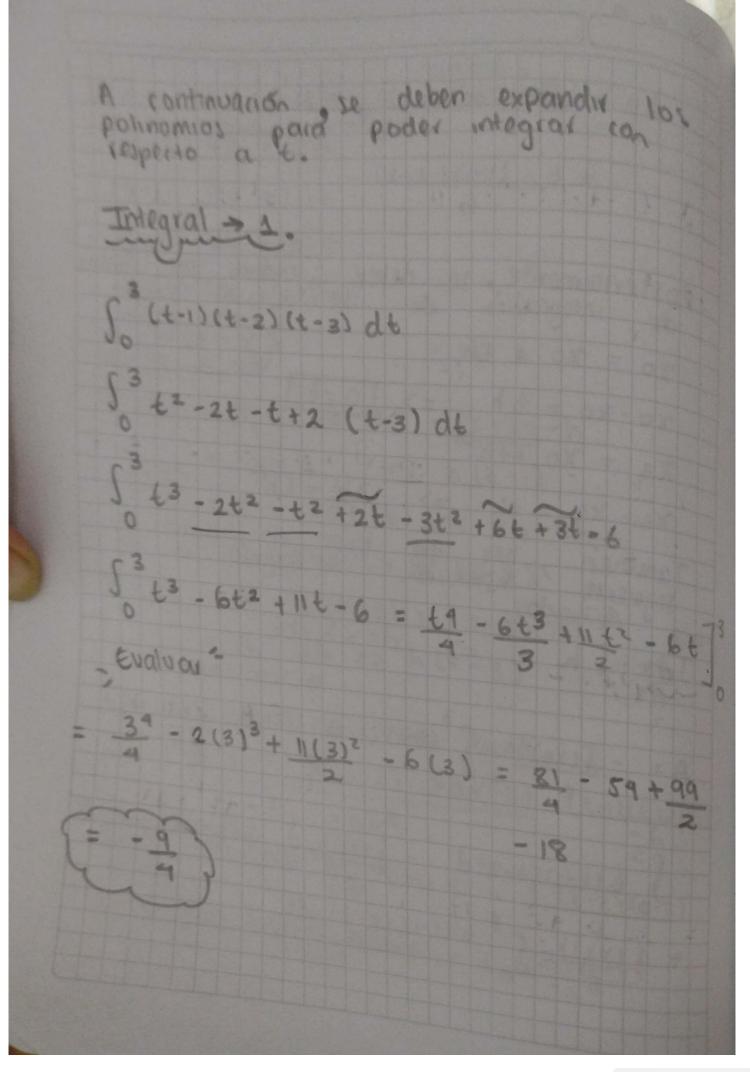


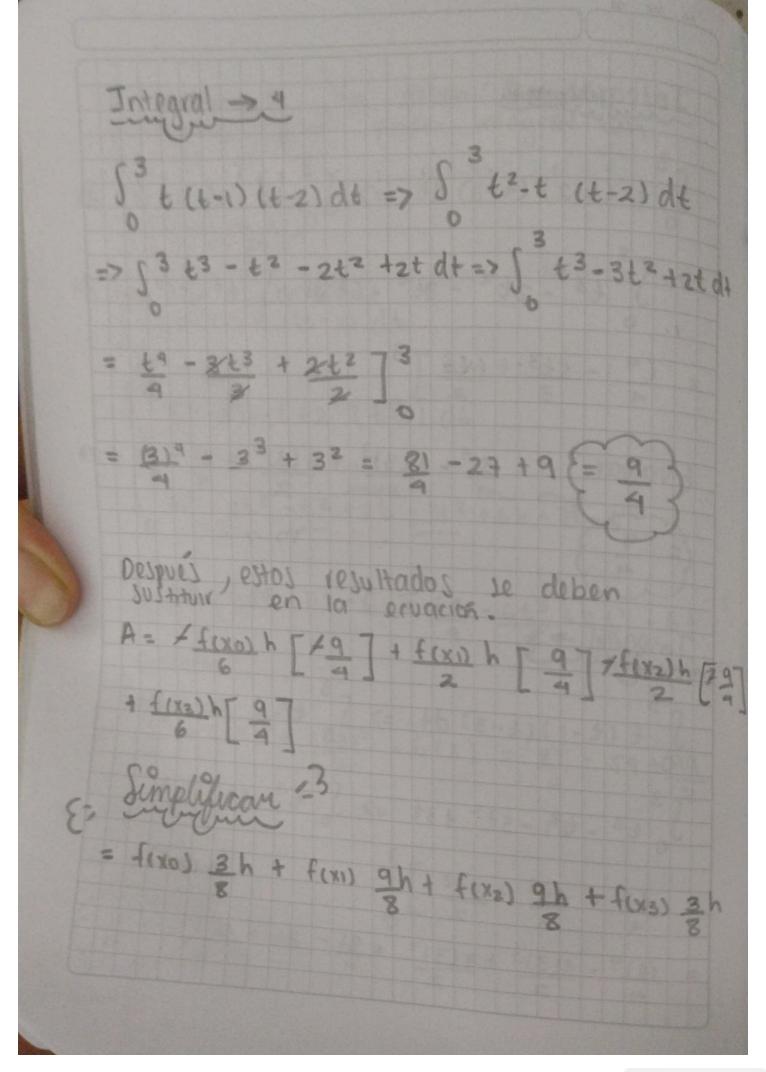
Ahora se debe miegray el polinomio en watan como constantes genes "fex;" A1 = & (x0) \( \int \) \( \text{X3} \) \( \text{Lo (x) dx} \) \( \text{X3} \) \( \text{Lo (x) dx} \) + f(x2) (x3 12(x) dx+ f(x3) (x3 13(x) dx Después de obtener esta expresión, se heren que hanar los coeficientes de lagrange .  $10 = \frac{(x - x_1)(x - x_2)(x - x_3)}{(x_0 - x_1)(x_0 - x_2)(x_0 - x_3)} = \frac{(x_0 - x_1)(x_0 - x_2)}{(x_0 - x_1)(x_0 - x_2)} = \frac{(x_0 - x_1)(x_0 - x_2)}{(x_0 - x_1)(x_0 - x_2)}$  $d_1 = \frac{(x - x_0)(x - x_2)(x - x_3)}{(x_1 - x_0)(x_1 - x_2)(x_1 - x_3)} = \frac{1}{(h)(-h)(-2h)}$ 12= (X - X0) (X - X1) (X - X3) (X2-x0)(X2-X1)(X2-X3) (2h)(h)(-h) 13= (x - x0)(x - x1) (x-x2) = (X3 - X0) (X3 - X1) (X3 - X2) (3h)(2h)(h) Lucgo, para hallar los valores de cada numerador, se deben tener en werd 195 siquientes relationes:

x = x0 + th > cambio anable x0 = x0 + 6h x1 = x0 + (1) h X2 = X0 + (2) h X3 = X0 + (3) h x-x0 = th x-x1 = x - (x0 +h) = x-x0-h = th-h => h(t-1) x - x2 = x - (x0+2h) = x - x0 - 2h = th - 2h => h (t-2) x - x3 = x - (x0+3h) = x-x0-3h = th - 3h => h (t-3) con 10 anteros se trene que: 10 = M(+-1) · K(+-2) · K(+-3) = (++1)(+-2)11-3 -6 k3 tk . k(+-2) . k(+-3) = 12 = tk. b(t-1).k(1-2) = £ (t-1)(t-3)





Integral = 3 5° t (4-2) (4-3) dt =7 5° t2-2t (t-3) di => 5° t3 - 2t2 - 3t2 +6t d+=>5° t3-562+6t d+ = 19 - 5+3 + 6+2 ]3 Evaluar = 37 - 5(3)3 + 6(3)2 = 81 - 45 + 27  $\int_{0}^{3} \xi(t-1)(t-3) dt = 2 \int_{0}^{3} \xi^{2} - \xi(t-3) d\xi$ Sots-t2-3t2+3t=> 5 t3-4t2+3t = +9 - 4+3 + 3+2 ]3 = (3)4 - 4(3)3 + 3(3)2 = 81 - 36 + 27 = -9



Lactorizari-= 3h [f(x0) + 3f(x1) + 3f(x2) + f(x2] Se acaba de demostrar que: 5 f(x) dx = 3h [f(x0) + 3f(x1) + 3f(x2) + f(x2)] Es la misma que... Sxi+3

S(x)dx 2 3 h [f(xi)+3f(xi+1)+3f(xi+2)+f(xi+3)]