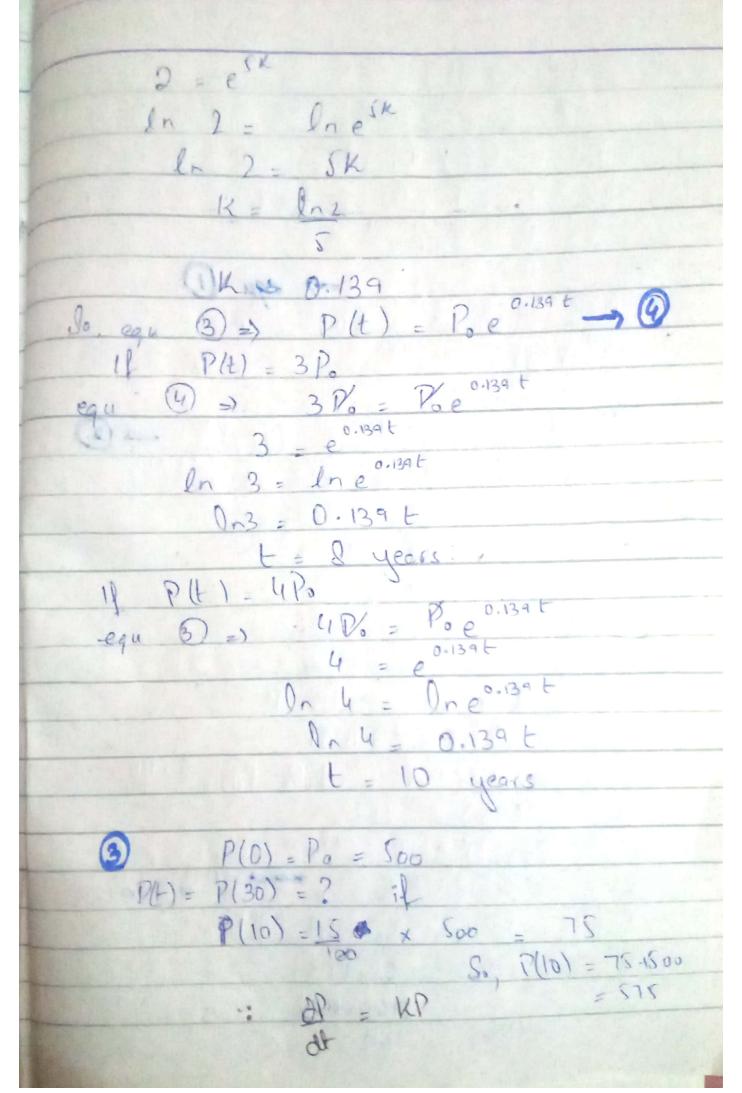
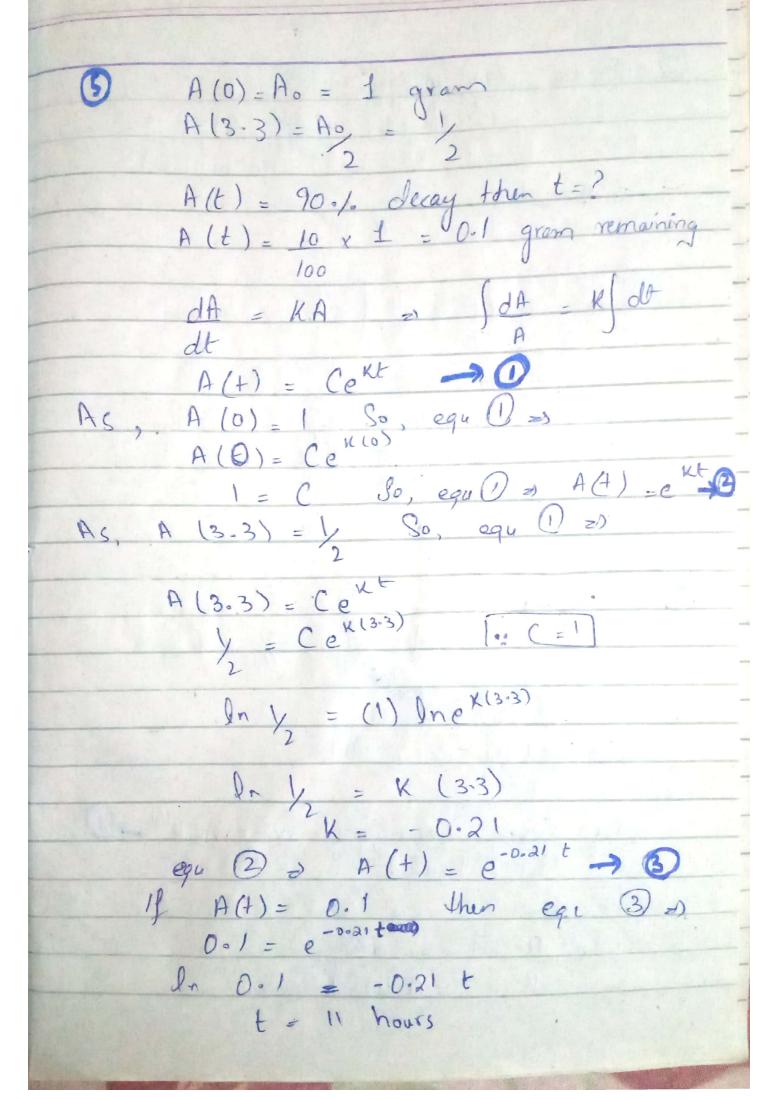
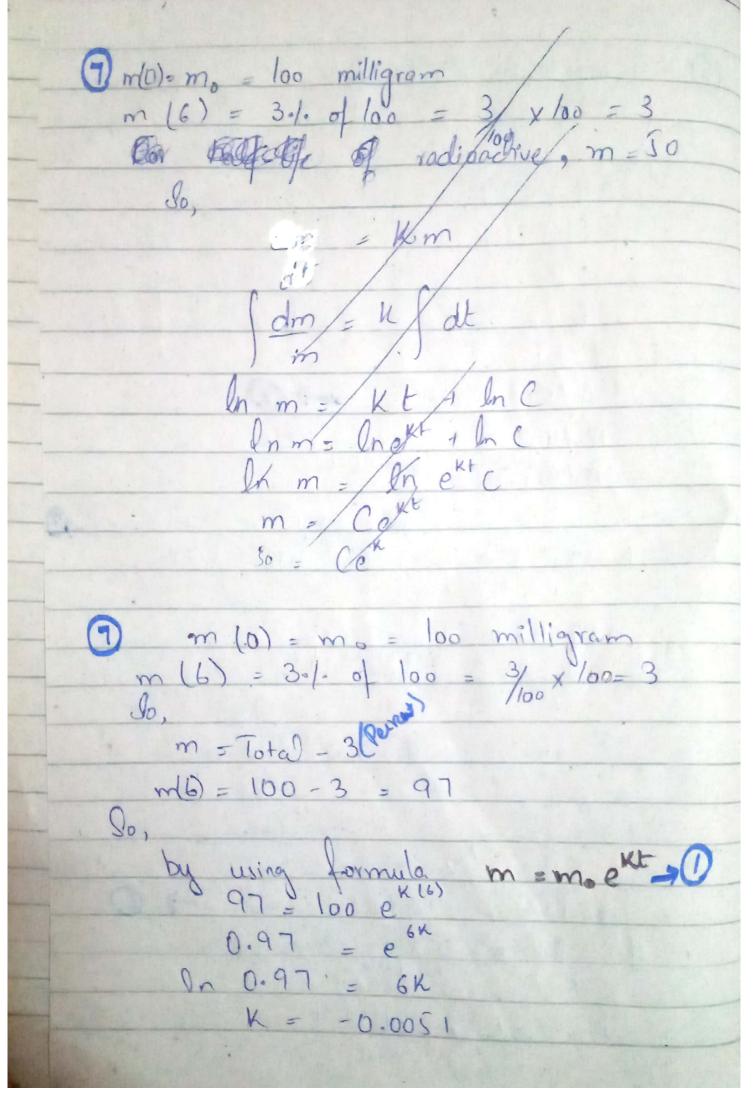
EXERCISE: 3.2

1.
$$P(0) = P_0$$
 $P(s) = 2P_0$
 $P(t) = 3P_0$, $t = ?$
 $P(t) = 4P_0$, $t = ?$
 $P(t) = 4P_0$, $t = ?$
 $P(t) = 4P_0$, $t = ?$
 $P(t) = KP_0$
 $P(t) = K + InC_0$
 $P(t) = Ine^{Kt}C_0$
 $P(t) = Ine^{$



OP = Kldt Po = 500 JAS, P S00 = D = 500 eV-Rs P(10) = 500 e X(10) 575 = 500 e 23 ln 23 = In e 10 K ln 1.15 = 10. K K = 0.0139 So, equ (2) => P(+) P(+) Soo e 0.0139+ P(30) = Poent = 500 e (3) = . 500 & (1-15)3. = 500 (1.52) = 760.43 P(30) : 760



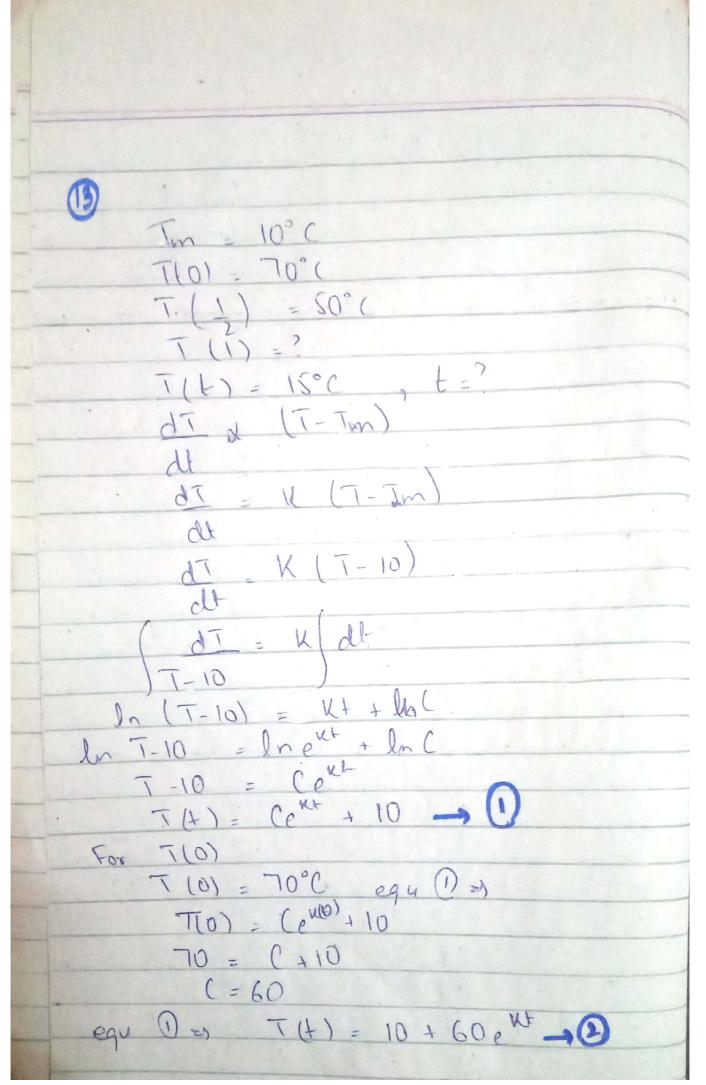


For halflife of radioactive, m=Jo -0.0051 t egu (1) On 0.5 = -0.0051 -0.0051 135.91 = t I(0) = I(3) = 25 Io I (15) = ? K++C 0) =]. = (+) I (= Ine I (3) = 25 Io 25 Vo = Ve

TIN. 0. 600 S. 2. In (25) = Kt li 26 = K (13) K = 1.07 2) => I (+) = I 0 e 1.07 t -> 3 Now for I(15) >> I (15) = to e 1.07 (15) - T e 3 (155) (15 => Ao = A(5600) A (0) = A = 1 A(t) = Cent -O For A(0) equ () =)

(e) (e) 1000 equ () = A(t) = 1 put By Juing A & Acent we kave

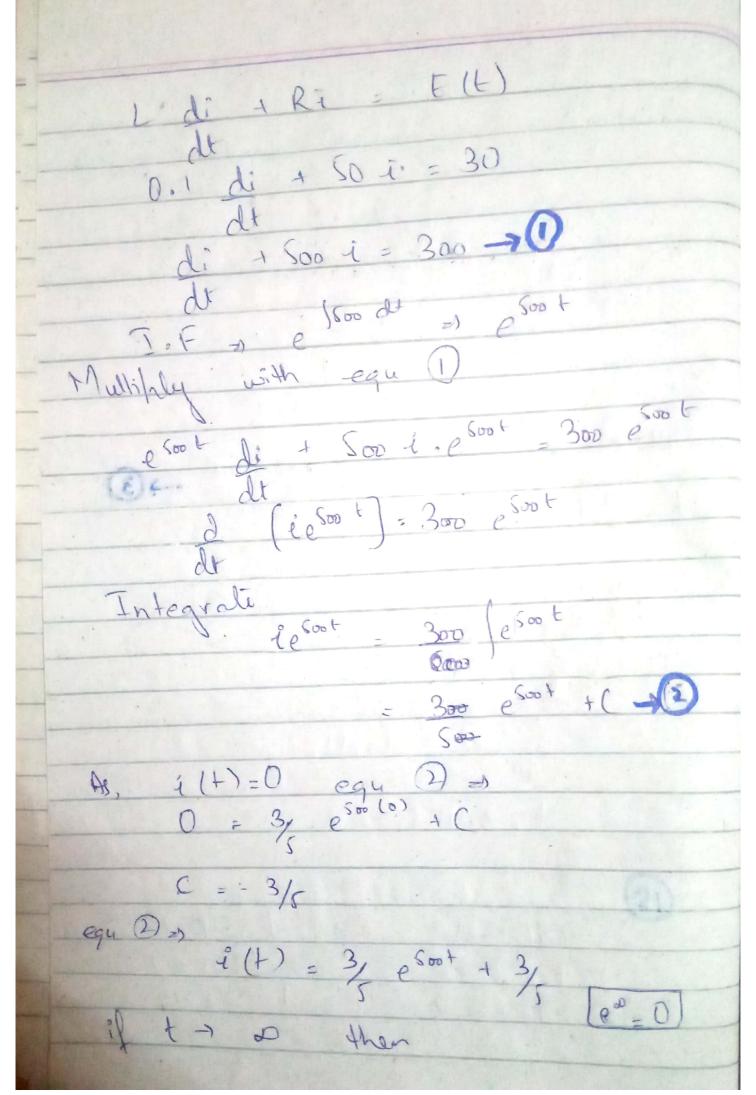
 $A(E) = \frac{1}{2}$



For T(1).50 equ (2) T(1) = 10 + 60 e Kt2

10 = 10 + 60 e Kt2

240 = e 2k K = - 0,811 T(+) = 10 + 60 e T(1) = 10 + 60 e -0.811(1) = 36.66 °C T(+)=15, t=? 00 u (3) => 5/ = e -0.811 E In I = - t 0.811 t= 3.058 min



i(+) = 3; -3; e^o
i(+) = 3;