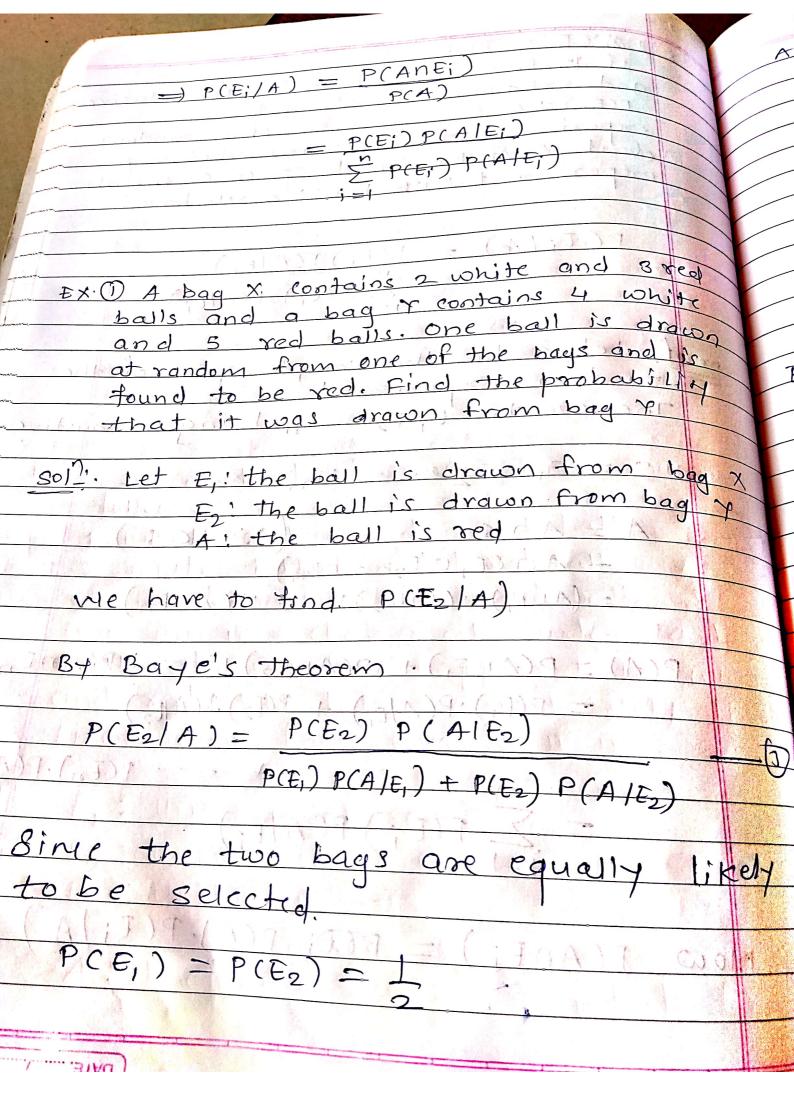
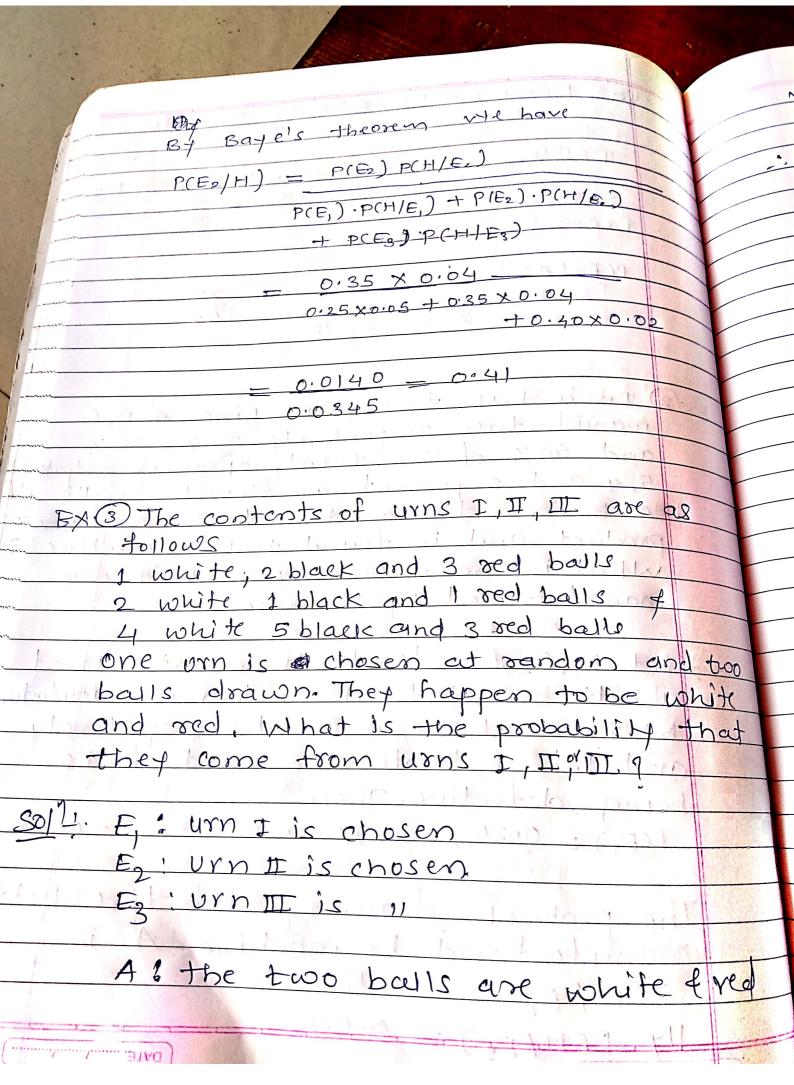
```
EATE'S THEOREM
         If Ene the are mudally exclusive
         and expansive events with
         expessionent then for any arbitrary
        execut A of the sample space of the experiment with PCA) > 0, We have
         P(E; 1A) = P(E;) P(A|E;)
   rect: Let s be the sample space of the sandom experiment

The events E, Ez - En being exhaustive
      SEE, WEDV-11-VEDVIII
      about the month of the fill of
       A = Ansi (I. ACS)
         - An(E, U Ez-- UEn)
         = (ADE,) U(ANE) V-- U(ANEn)
     P(A) = P(AnE) + P(AnE2) += T + P(AnEn)
          = P(E,).P(A/E,) + P(E2).P(A/E2)
     P(En).P(AIE,
         = E P(E;) P(A/E;)
      FILAUDE 180 2
NOW P(ANE;) = BOOD; P(A).P(E; /A
```



ALSO PCAIED = P(a sed ball is drawn from bag x) = 3 p(A/E2) = P(a red ball is drawn from bag P(E2/A) = 3x5 D. (2) In a bolt tactory machine A, B, C many factures respectively 25 y, 35 y, and 40 y, of the total. of their output 5,4 and 2 percent are detective ball's A bolt is drawn at random from the product and is tound to be detective what is the probability that it was manufactured by machine Bullion I let En Ez Ez denote theirents that a bolt selected at random is manufacture by the machines A, Band C respectively and lett H denote the event of it's being defective. Then P(E1) = 0.25, P(E2) = 0.35, P(E3) = 0.40 To the thing of the contraction The prob. of drawing detective bolt manytactured by maehine A is PCH/E,) = 100015 3001 1016 119 PCH/E2) = 0.04 P(H/E3) = 0.02



me have to tind	
P(E, A), P(E, A) & P(E, A)	
$P(E_1) = P(E_2) = P(E_3) = \frac{1}{3}$	
p(AIE,) = P(a white and a red ball	alw
drawn for and a ma ball	900
drawn from urn I)	
$= 1c_1 \times 3c_1$	
$\frac{60}{2} = \frac{1}{5}$	
2	
$P(A E_2) = 2C_1 \times C_1 + P(A E_2) = \frac{1}{2}$	1C. ×3C,
	12(2
4(2	0
	11
By Baye's theorem We have	
by bayes Theorem we have	
P(E,IA) = P(E,) P(AIE,)	
P(E) A CO () + D(E) D(A/C)	
P(E,) P(A/E,) + P(E2) P(A/E2)	
+ P(E3) P(A/E3))	
11(03)1(11703)	
= 3×5	
MAIN AND TO A STATE OF THE PARTY OF THE PART	
1x1+1x1+1x2	
3 3 11	
The state of the s	
= 33	And the second s
118	and the same of th
$P(E_2 A) = \frac{55}{19} P(E_3 A) = \frac{15}{59}$	
1(2111) 118	
Sconned with Company	