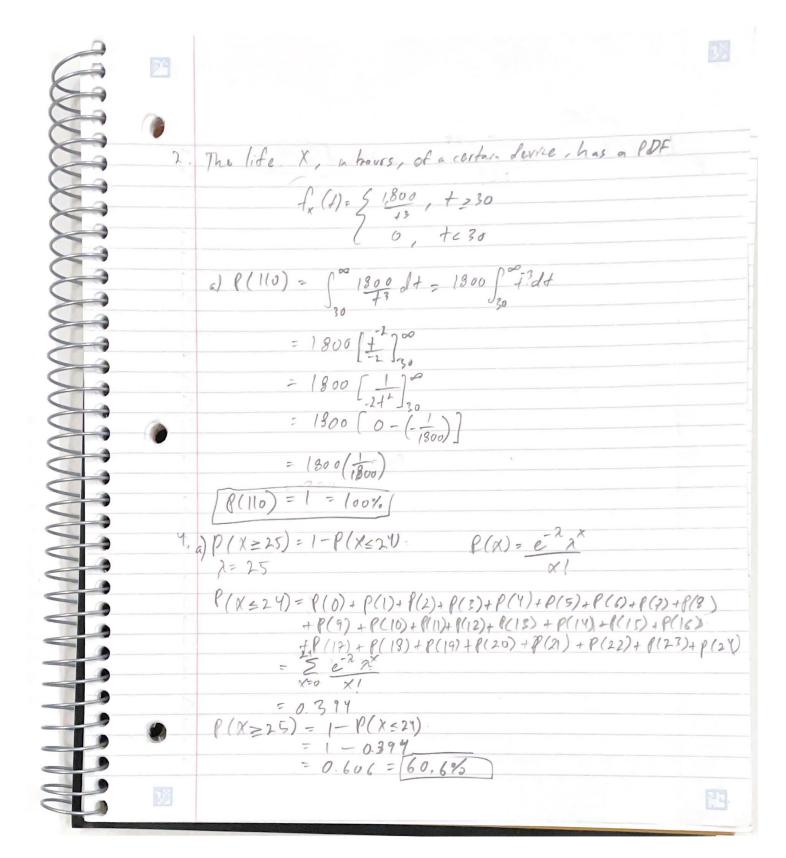
8 218/23 Agustin Espiroza SIE321 HW3 Let X be discrete Candom var. (DAV), with probability dist. Determine x, x, x, such that E[x]=0 and o 2(x)=8. Expectation E(X):

Variance $\delta^2(Y)$: $E(Y) = \int_{-\infty}^{\infty} y f_Y(y) dy$ $Variance \delta^2(Y)$: $Variance \delta^2(Y)$: - Discrete Var. E[Y] = 5 y, P(Y=y;) E[X]=0=3 $x_i P(X=X_i)$ $0 = \chi_{1}(0.65) + \chi_{2}(0.35)$ $8^{2}(X) = 8 = E[X^{2}] - E[X]^{2}$ $8 = E[X^{2}] - 0$ $E[X^{2}] = 8$ $= 5 \times 2^{2} P(X = X_{i})$ = 1 = 1 = 1 $8 = x_1^2(0.65) + x_2^2(0.35)$ $0 = x_1^2(0.65)^2 + x_2^2(0.35)^2$ $\begin{cases} 8 = 6.65 \times ^{2} + 0.35 \times ^{2} \\ 0 = 0.4225 \times ^{2} + 0.1225 \times ^{2} \end{cases}$ $\chi_{1} = \pm 2\sqrt{14} = \pm 2.08 / \chi_{2} = \pm 2\sqrt{26} = \pm 3.35$



2=25 b) P(x=25) = 25²⁵e = 0.0795 = 7.95%