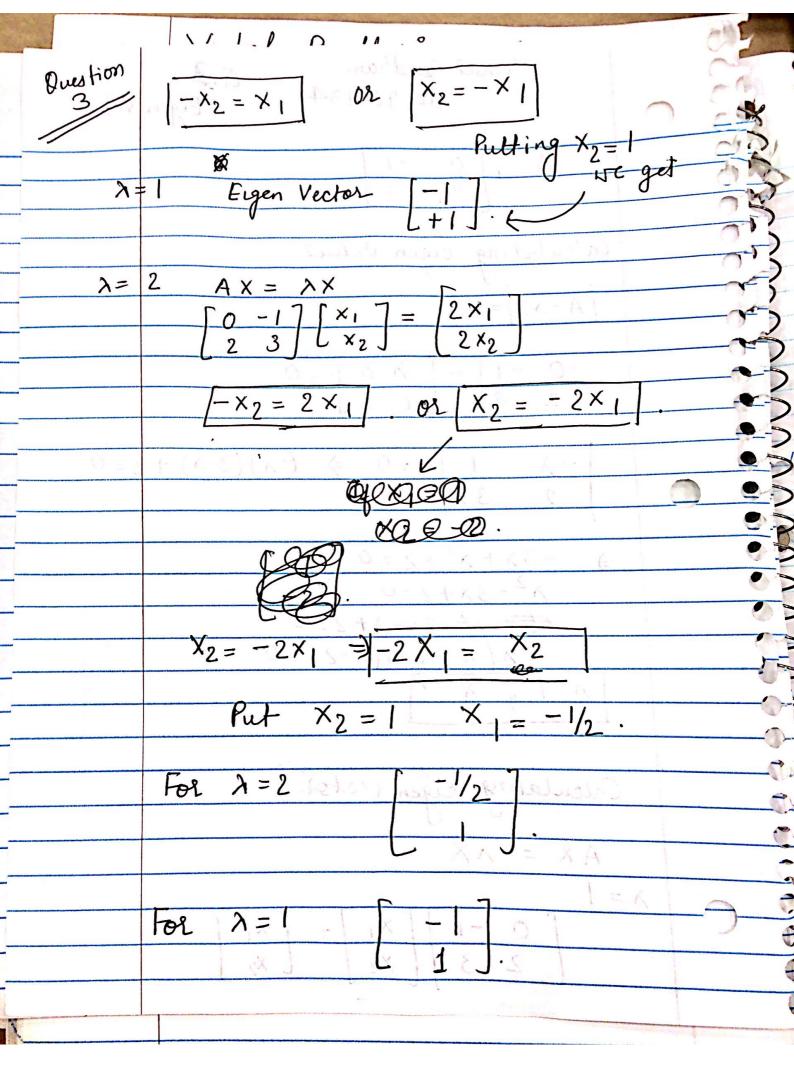
Vishal Budhani Eigen Value Q.3 800966134 A = Calculating eigen values. $A - \lambda I = 0$ $\Rightarrow 0 \Rightarrow (\lambda)(3-\lambda) + 2 = 0$ $-3\lambda + \lambda^2 + 2 = 0$ $\lambda^2 - 3\lambda + 2 = 0$ $\frac{\lambda^2 - 2\lambda - \lambda + 2 = 0}{2}$ $\lambda(\lambda-2)-1(\lambda-2)=0$ $\lambda = 1$, $\lambda = 2$ Calculating eigen victor $AX = \lambda X$. λ = 1



Vishaf Budhani Ques # 2.

800966134

Chuestion 2. Let & v_1, v_2 - - v_n } be

an orthogonal basis for
a subspece W of R^n.

Then for each $Z = C_1 v_1 + C_2 v_2 - - - C_n v_n$ We can generalize to

United

We have a generalize to

Vishal Budhani Q.3 Eigen Value 800966134 Calculating eigen values. $=0 \Rightarrow (\lambda)(3-\lambda)+2=0$ $-3\lambda+\lambda^2+2=0$ $\lambda^2 - 3\lambda + 2 = 0$ $\frac{2}{\lambda^2} \lambda^2 - 2\lambda - \lambda + 2 = 0$ $\lambda(\lambda-2)-1(\lambda-2)=0$ $\lambda = 1$ 9 $\lambda = 2$ Calculating eigen vector $AX = \lambda X$ $\lambda = 1$

