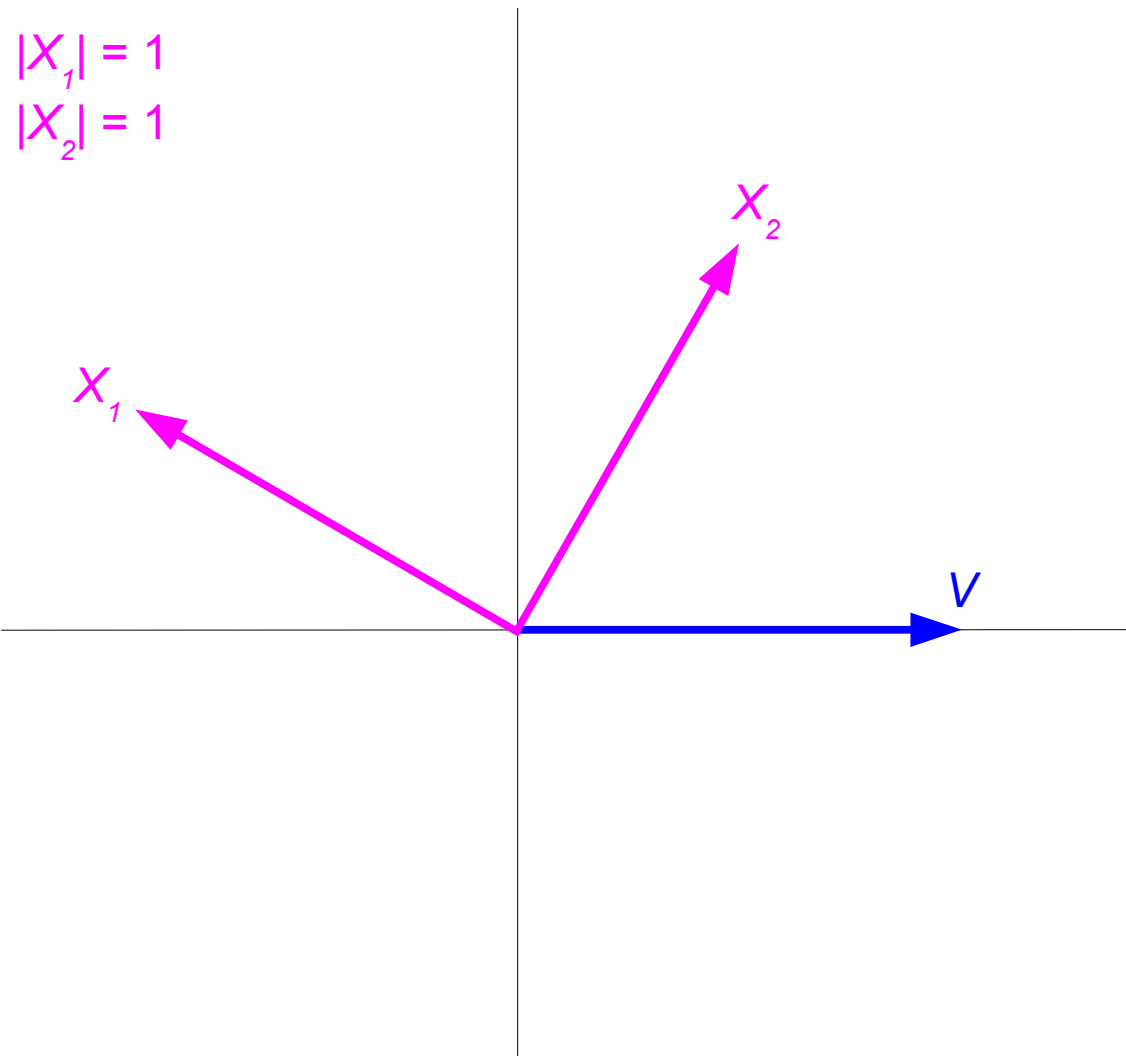
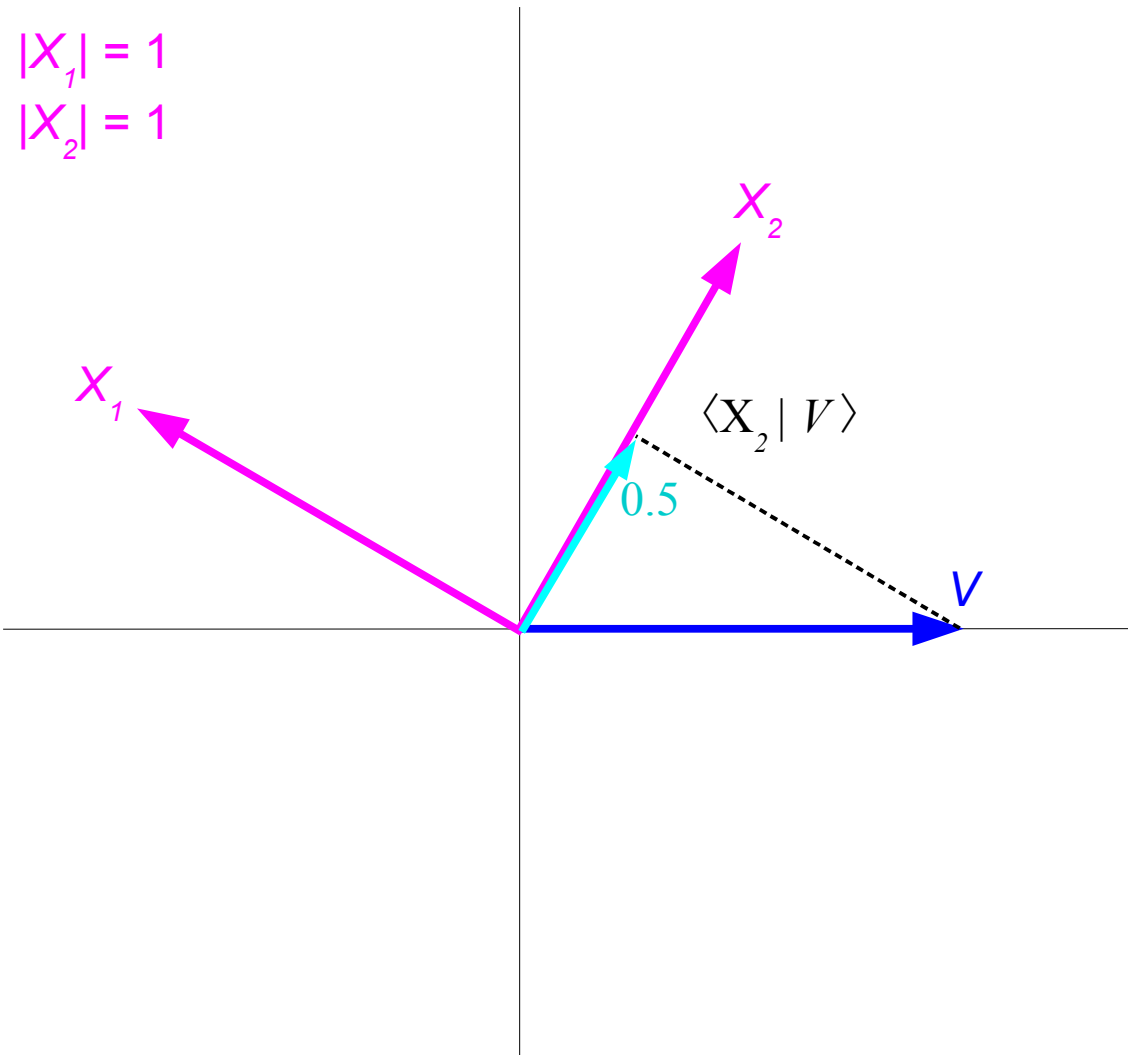


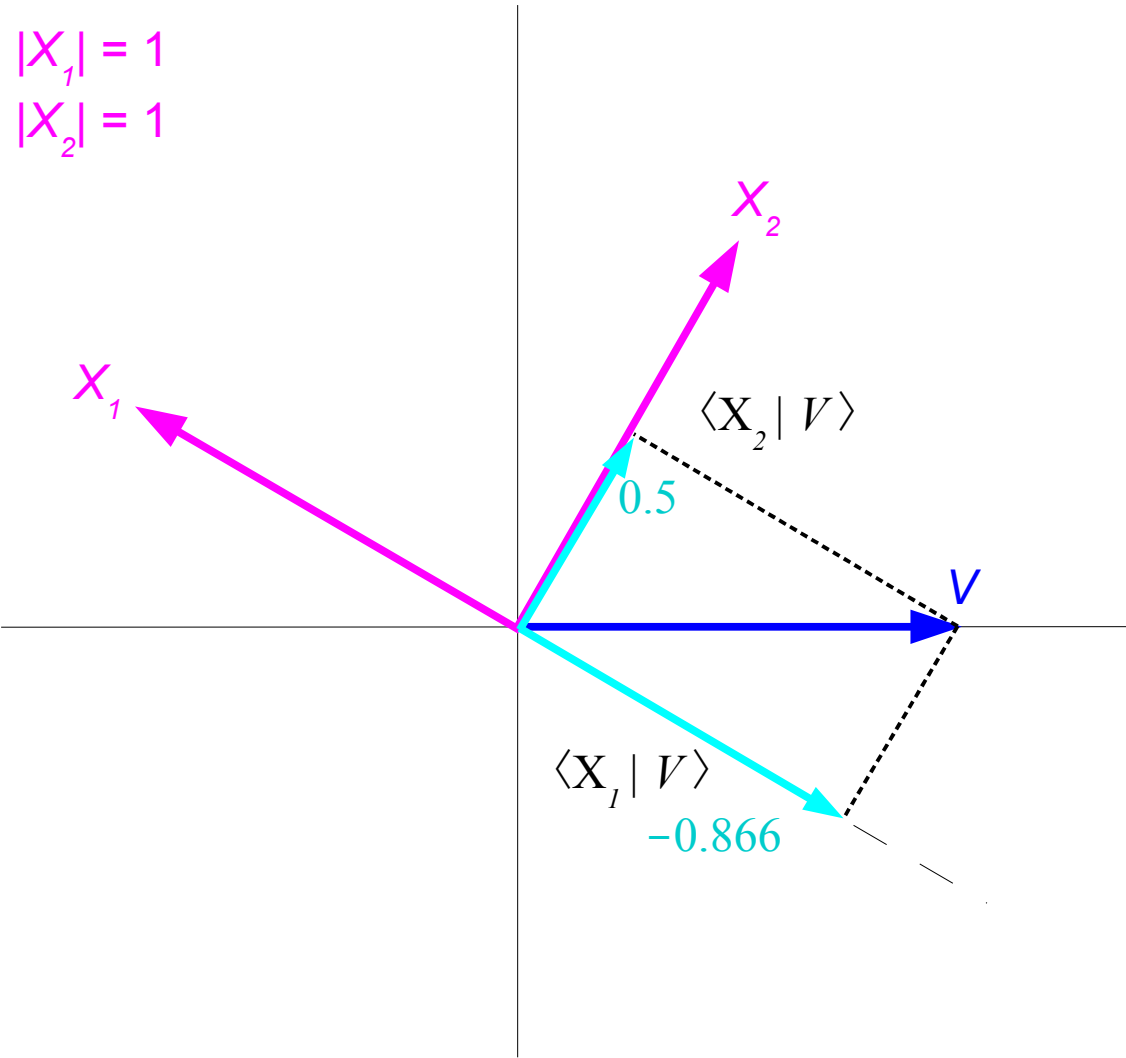
Projecting V onto X_1 and X_2



Projecting V onto X_1 and X_2



Projecting V onto X_1 and X_2

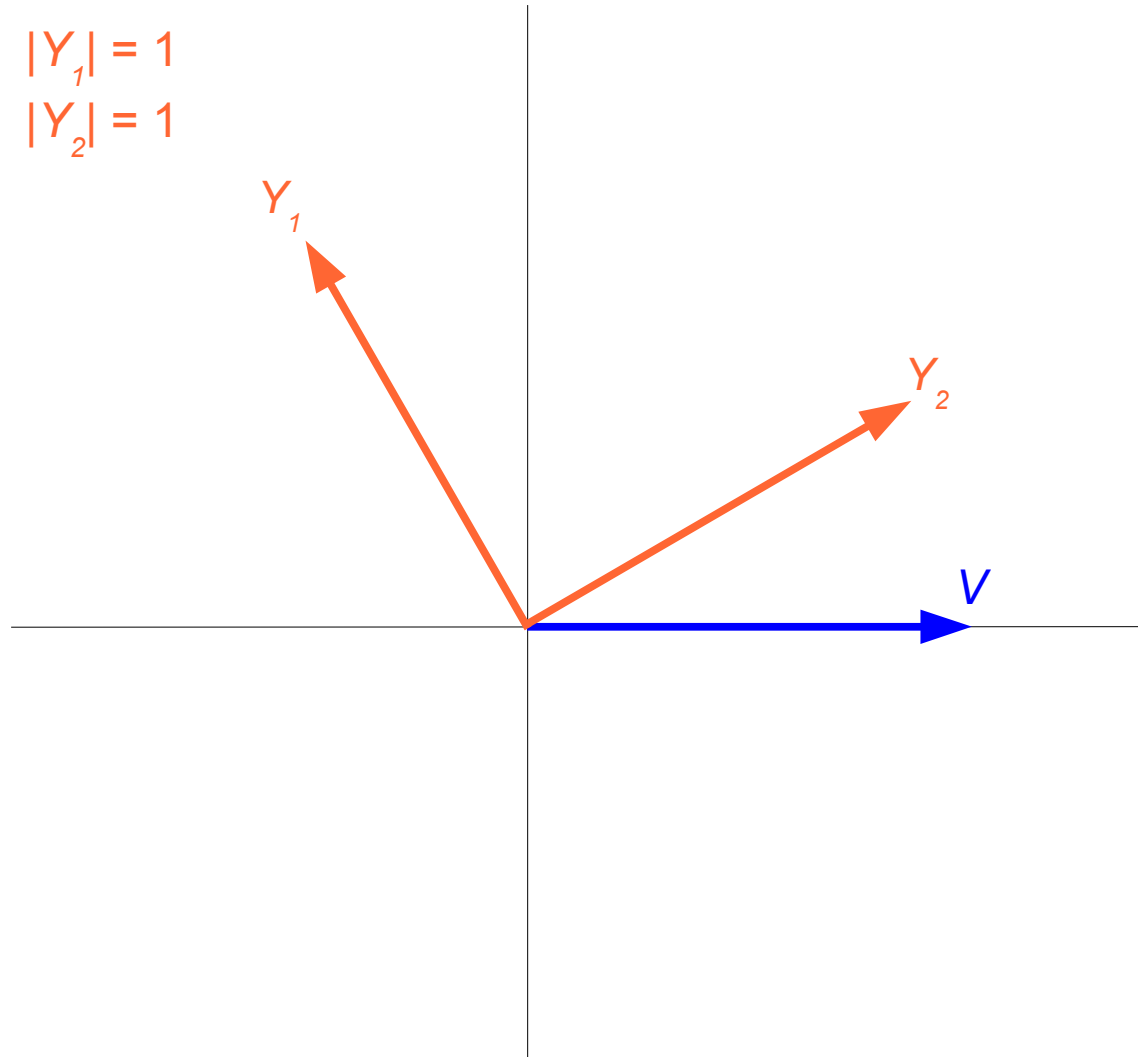


$$|X_1\rangle = 1$$
$$|X_2\rangle = 1$$

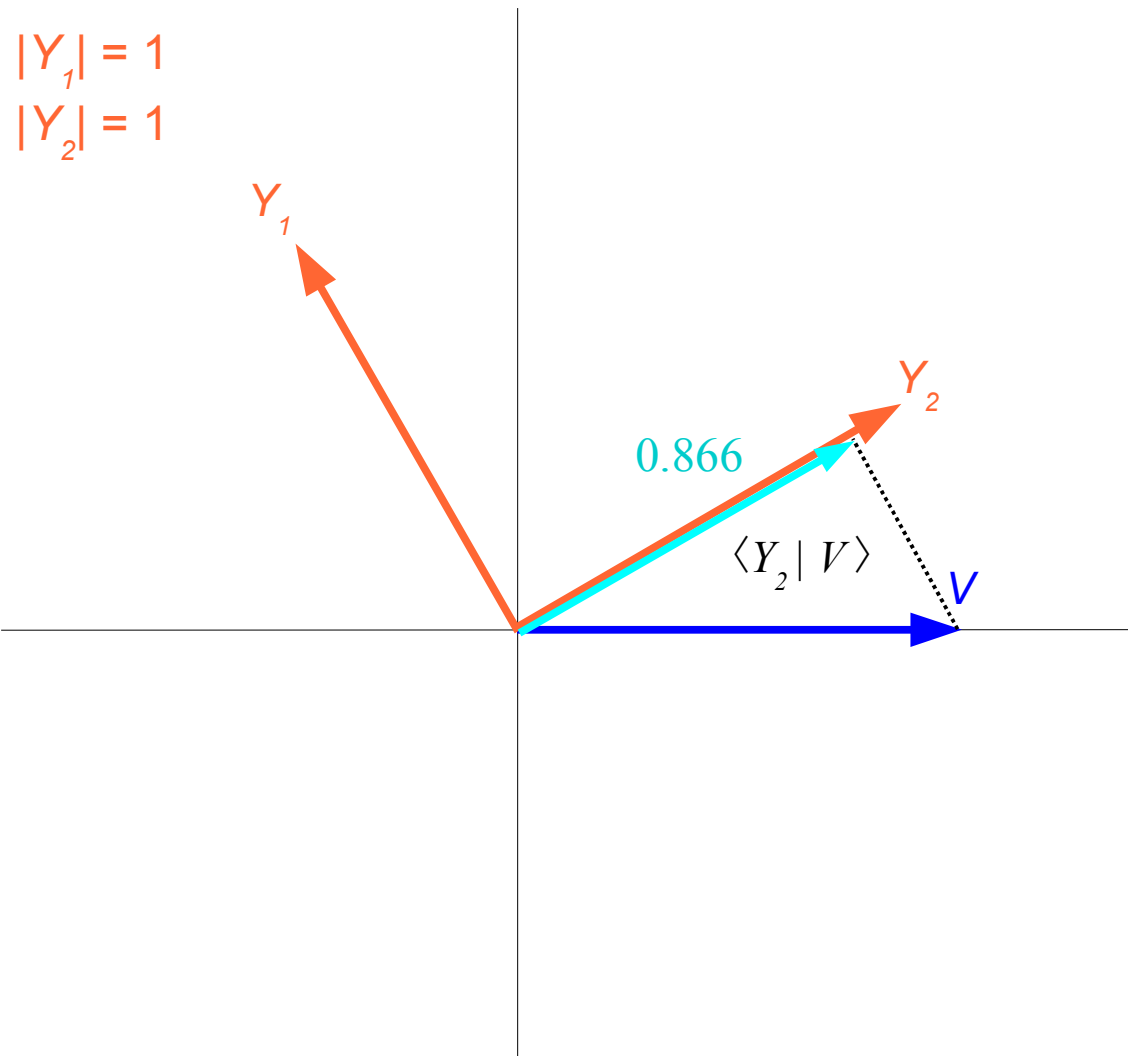
$$V = -0.866 |X_1\rangle + 0.5 |X_2\rangle$$

Projecting V onto Y_1 and Y_2

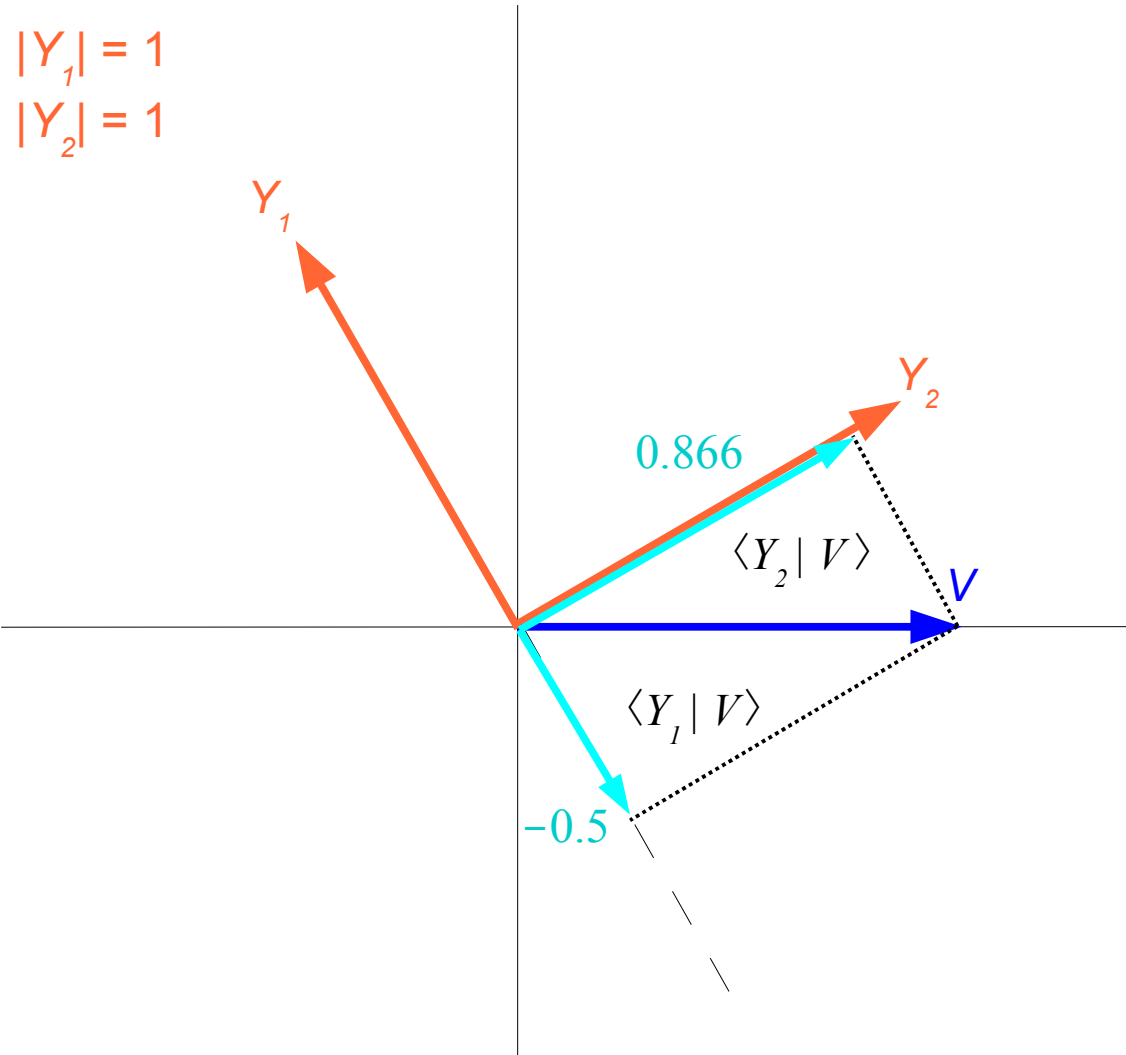
$$|Y_1| = 1$$
$$|Y_2| = 1$$



Projecting V onto Y_1 and Y_2



Projecting V onto Y_1 and Y_2



$$V = -0.5 |Y_1\rangle + 0.866 |Y_2\rangle$$