1. Can $Y = 5 + 2.8X$ and $X = 3 - 0.5Y$ be the estimated regression equations of Y on X and X on Y respectively? Explain Your answer.
2. Fit the exponential curve of the form $Y = ab^x$ to the following data

X	1	2	3	4	5	6	7	8
Y	1.0	1.2	1.8	2.5	3.6	4.7	6.6	9.1

3. The equations of two lines of regression, obtained in a correlation analysis between variables X and Y are as follows:
   $2X + 3 - 8 = 0$ and $2Y + X - 5 = 0$. The variance of $X = 4$ Find the
   a. Variance of Y
   b. Coefficient of determination of C and Y
   c. Standard error of estimate of X on Y and of Y on X.