

11.9.3.6

EE23BTECH11022 - G DILIP REDDY

Question:

For what values of x , the numbers $-\frac{2}{7}, x, -\frac{7}{2}$ are in G.P ?

Solution:

Let a, b, c be any three consecutive terms of a GP whose common difference is r then,

$$\begin{aligned} \Rightarrow \frac{b}{a} &= \frac{c}{b} = r \\ \Rightarrow \frac{x}{(-\frac{2}{7})} &= \frac{(-\frac{7}{2})}{x} \\ x^2 &= (-\frac{2}{7}) \cdot (-\frac{7}{2}) \\ x^2 &= 1 \\ x &= 1, -1 \end{aligned}$$