According to the bilinear interpolation formular (1)

$$f(x) = \frac{1}{(x_2 - x_1)(y_2 - y_1)} \begin{pmatrix} x_2 - x & x - x_1 \end{pmatrix} \begin{pmatrix} f(Q_{11}) & f(Q_{12}) \\ f(Q_{21}) & f(Q_{22}) \end{pmatrix} \begin{pmatrix} y_2 - y \\ y - y_1 \end{pmatrix} \qquad (1)$$

and the data we got from the problem. we can get

$$f(p) = \frac{1}{1 \times 1} \begin{pmatrix} \frac{1}{4}, & \frac{3}{4} \end{pmatrix} \begin{pmatrix} 12 & 6 \\ 9 & 4 \end{pmatrix} \begin{pmatrix} \frac{1}{3} \\ \frac{2}{3} \end{pmatrix}$$

$$= \begin{pmatrix} 3 + \frac{27}{4}, & \frac{3}{2} + 3 \end{pmatrix} \begin{pmatrix} \frac{1}{3} \\ \frac{2}{3} \end{pmatrix}$$

$$= 1 + \frac{9}{4} + 1 + 2 = 6.25$$

So the value of point p is 6.25