

**14** The discrete random variables  $X$  and  $Y$  can be modelled by the distributions

$$X \sim B(40, p)$$

$$Y \sim B(25, 0.6)$$

It is given that the mean of  $X$  is equal to the variance of  $Y$

**14 (a)** Find the value of  $p$

**[3 marks]**

**14 (b)** Find  $P(Y = 17)$

**[1 mark]**