

- 1 Fig. 1 shows the probability distribution of the discrete random variable  $X$ .

|            |     |     |     |      |      |
|------------|-----|-----|-----|------|------|
| $x$        | 1   | 2   | 3   | 4    | 5    |
| $P(X = x)$ | 0.2 | 0.1 | $k$ | $2k$ | $4k$ |

**Fig. 1**

- (a) Find the value of  $k$ . [2]
- (b) Find  $P(X \neq 4)$ . [2]