9 A curve has equation $y = x^2 - 8x + c$, where c is a constant.

(a) Find the value of c in each of the following cases.

(i) The curve crosses the x-axis at $x = 2$. [1]

(ii) The minimum value of y is 3. [3]

(b) Find the range of values of c for which y is always greater than 0. [2]

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10 **(a)** A class contains 7 girls and 8 boys. A group of 6 is selected from the class. The group must contain at least 3 girls and at least 2 boys. Find the number of different groups that can be selected. [3]

(b) A 5-character code is to be formed from the following characters.

Letters	A	B	C	D	E	F
Numbers	1	2	3			

No character may be used more than once in any code. The characters may be arranged in any order.

Find the number of different codes that can be formed using 4 letters and 1 number. [3]

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