1 A building company employs

2 labourers

14 joiners

9 electricians

8 plumbers.

For a job, the company needs one of each type of worker.

1 (a) In how many ways can the company choose the four workers?

[2 marks]

$2 \times 14 \times 9 \times 8 = 2016$ (1) (1)

Answer 2016

1 (b) One labourer and two plumbers are on holiday.

In how many ways can the company now choose the four workers?

[2 marks]

$1 \times 14 \times 9 \times 6 = 756$ (1) (1)

Answer 756

2 In a video game, players make their own character.

They choose one of each from

8 faces

4 bodies

5 hairstyles.

2 (a) How many different characters can be made?

[2 marks]

$8 \times 4 \times 5 = 160$

(1) (1)

Answer 160

3 Fatima is choosing a 4-digit code.

Each digit is a whole number from 0 to 9

She decides

all her digits will be odd numbers

no digits will be repeated.

How many different codes can she make?

[2 marks]

odd numbers : 1, 3, 5, 7, 9 (5 choices)

$5 \times 4 \times 3 \times 2 = 120$

✓ ✓

Answer 120