

1 Rayheem has

16 shirts

5 pairs of jeans

3 jackets

Rayheem chooses an outfit to wear.

An outfit is 1 shirt, 1 pair of jeans and 1 jacket.

Work out how many different outfits Rayheem can choose.

$$\# \text{ of outfits} = \# \text{ of shirts} \times \# \text{ of jeans} \times \# \text{ of jackets}$$

$$= 16 \times 5 \times 3 \quad (1)$$

$$= 240 \quad (1)$$

.....240

(Total for Question 1 is 2 marks)

2 A pet shop has

- 7 guppy fish
- 13 tetra fish
- 5 angel fish.

David is going to choose one of the following combinations of fish

- a guppy fish and an angel fish
- or** a tetra fish and an angel fish
- or** a guppy fish, a tetra fish and an angel fish.

Show that there are 555 different ways for David to choose his fish.

ways of choosing:

1. guppy and angel: $7 \times 5 = 35$ ①
2. tetra and angel: $13 \times 5 = 65$
3. guppy, tetra and angel: $7 \times 13 \times 5 = 455$

total number of ways = $35 + 65 + 455 = 555$ ①

(Total for Question 2 is 2 marks)