

Solutions – Systematic Listing (A)

List all two-digit numbers using the digits 2, 7 and 3.

22, 27, 23, 72, 77, 73, 32, 37, 33

List all possible pairs of fruits from pear, banana and apple.

pear + banana, pear + apple, banana + apple

List all possible outfits using a blue or yellow shirt and grey or brown shorts.

blue + grey, blue + brown, yellow + grey, yellow + brown

A café sells 4 drinks and 3 cakes.

How many different drink + cake combinations are possible?

$$4 \times 3 = 12$$

Solutions – Systematic Listing (B)

A café sells 4 drinks and 2 cakes.

How many different drink + cake combinations are possible?

$$4 \times 2 = 8$$

List all two-digit numbers using the digits 3, 5 and 9.

33, 35, 39, 53, 55, 59, 93, 95, 99

List all possible outfits using a green or yellow shirt and grey or black shorts.

green + grey, green + black, yellow + grey, yellow + black

List all possible pairs of fruits from apple, orange and banana.

apple + orange, apple + banana, orange + banana

Solutions – Systematic Listing (C)

A café sells 3 drinks and 3 cakes.

How many different drink + cake combinations are possible?

$$3 \times 3 = 9$$

List all possible outfits using a blue or red shirt and white or grey shorts.

blue + white, blue + grey, red + white, red + grey

List all possible pairs of fruits from orange, apple and pear.

orange + apple, orange + pear, apple + pear

List all two-digit numbers using the digits 2, 8 and 7.

22, 28, 27, 82, 88, 87, 72, 78, 77

Solutions – Systematic Listing (D)

List all possible outfits using a yellow or blue shirt and white or grey shorts.

yellow + white, yellow + grey, blue + white, blue + grey

List all two-digit numbers using the digits 9, 7 and 4.

99, 97, 94, 79, 77, 74, 49, 47, 44

A café sells 4 drinks and 2 cakes.

How many different drink + cake combinations are possible?

$$4 \times 2 = 8$$

List all possible pairs of fruits from banana, pear and orange.

banana + pear, banana + orange, pear + orange

Solutions – Systematic Listing (E)

List all possible pairs of fruits from grape, orange and banana.

grape + orange, grape + banana, orange + banana

List all two-digit numbers using the digits 6, 3 and 9.

66, 63, 69, 36, 33, 39, 96, 93, 99

List all possible outfits using a blue or red shirt and brown or black shorts.

blue + brown, blue + black, red + brown, red + black

A café sells 4 drinks and 2 cakes.

How many different drink + cake combinations are possible?

$$4 \times 2 = 8$$

Solutions – Systematic Listing (F)

List all possible outfits using a red or yellow shirt and white or brown shorts.

red + white, red + brown, yellow + white, yellow + brown

List all two-digit numbers using the digits 1, 5 and 4.

11, 15, 14, 51, 55, 54, 41, 45, 44

A café sells 3 drinks and 3 cakes.

How many different drink + cake combinations are possible?

$$3 \times 3 = 9$$

List all possible pairs of fruits from orange, banana and apple.

orange + banana, orange + apple, banana + apple

Solutions – Systematic Listing (G)

List all possible outfits using a green or blue shirt and grey or white shorts.

green + grey, green + white, blue + grey, blue + white

List all possible pairs of fruits from banana, pear and grape.

banana + pear, banana + grape, pear + grape

List all two-digit numbers using the digits 8, 7 and 3.

88, 87, 83, 78, 77, 73, 38, 37, 33

A café sells 3 drinks and 2 cakes.

How many different drink + cake combinations are possible?

$$3 \times 2 = 6$$

Solutions – Systematic Listing (H)

List all possible pairs of fruits from grape, orange and banana.

grape + orange, grape + banana, orange + banana

List all two-digit numbers using the digits 3, 8 and 2.

33, 38, 32, 83, 88, 82, 23, 28, 22

A café sells 4 drinks and 2 cakes.

How many different drink + cake combinations are possible?

$$4 \times 2 = 8$$

List all possible outfits using a yellow or green shirt and brown or white shorts.

yellow + brown, yellow + white, green + brown, green + white

Solutions – Systematic Listing (I)

A café sells 4 drinks and 4 cakes.

How many different drink + cake combinations are possible?

$$4 \times 4 = 16$$

List all two-digit numbers using the digits 4, 3 and 5.

44, 43, 45, 34, 33, 35, 54, 53, 55

List all possible pairs of fruits from orange, banana and apple.

orange + banana, orange + apple, banana + apple

List all possible outfits using a green or blue shirt and white or black shorts.

green + white, green + black, blue + white, blue + black

Solutions – Systematic Listing (J)

List all possible pairs of fruits from orange, pear and banana.

orange + pear, orange + banana, pear + banana

A café sells 4 drinks and 3 cakes.

How many different drink + cake combinations are possible?

$$4 \times 3 = 12$$

List all possible outfits using a green or red shirt and grey or white shorts.

green + grey, green + white, red + grey, red + white

List all two-digit numbers using the digits 4, 8 and 1.

44, 48, 41, 84, 88, 81, 14, 18, 11