Counting: Permutations & Combinations · 1

You have 2 shirts, 5 pairs of pants and 2 pairs of shoes. How many different outfits can you make?

Counting: Permutations & Combinations · 2

Evaluate 5!

Counting: Permutations & Combinations · 3

In how many different orders can 4 books be placed on a shelf?

Counting: Permutations & Combinations · 4

You have 5 shirts, 4 pairs of pants and 2 pairs of shoes. How many different outfits can you make?

Counting: Permutations & Combinations · 5

Evaluate 3!

Counting: Permutations & Combinations · 6

In how many different orders can 5 books be placed on a shelf?

Counting: Permutations & Combinations · 7

You have 2 shirts, 2 pairs of pants and 2 pairs of shoes. How many different outfits can you make?

Counting: Permutations & Combinations · 8

Evaluate 6!

Counting: Permutations & Combinations · 2

ANSWER

120

Counting: Permutations & Combinations · 1

ANSWER

20

Counting: Permutations & Combinations · 4

ANSWER

40

Counting: Permutations & Combinations · 3

ANSWER

24

Counting: Permutations & Combinations · 6

ANSWER

120

Counting: Permutations & Combinations · 5

ANSWER

6

Counting: Permutations & Combinations · 8

ANSWER

720

Counting: Permutations & Combinations · 7

ANSWER

8

Counting: Permutations & Combinations · 9

In how many different orders can 3 books be placed on a shelf?

Counting: Permutations & Combinations · 10

You have 2 shirts, 3 pairs of pants and 3 pairs of shoes. How many different outfits can you make?

Counting: Permutations & Combinations · 11

You have 3 shirts, 4 pairs of pants and 3 pairs of shoes. How many different outfits can you make?

Counting: Permutations & Combinations · 12

Evaluate 4!

Counting: Permutations & Combinations · 13

You have 3 shirts, 4 pairs of pants and 2 pairs of shoes. How many different outfits can you make?

Counting: Permutations & Combinations · 14

In how many different orders can 7 books be placed on a shelf?

Counting: Permutations & Combinations · 15

You have 5 shirts, 2 pairs of pants and 3 pairs of shoes. How many different outfits can you make?

Counting: Permutations & Combinations · 16

You have 4 shirts, 3 pairs of pants and 3 pairs of shoes. How many different outfits can you make?

Counting: Permutations & Combinations · 10

ANSWER

18

Counting: Permutations & Combinations · 9

ANSWER

6

Counting: Permutations & Combinations · 12

ANSWER

24

Counting: Permutations & Combinations · 11

ANSWER

36

Counting: Permutations & Combinations · 14

ANSWER

5040

Counting: Permutations & Combinations · 13

ANSWER

24

Counting: Permutations & Combinations · 16

ANSWER

36

Counting: Permutations & Combinations · 15

ANSWER

30

Counting: Permutations & Combinations · 17

In how many different orders can 6 books be placed on a shelf?

Counting: Permutations & Combinations · 18

Evaluate P(6, 4), the number of permutations of 6 things taken 4 at a time.

Counting: Permutations & Combinations · 19

11 runners race. In how many ways can the gold, silver and bronze medals be awarded?

Counting: Permutations & Combinations · 20

Evaluate P(6, 2), the number of permutations of 6 things taken 2 at a time.

Counting: Permutations & Combinations · 21

7 runners race. In how many ways can the gold, silver and bronze medals be awarded?

Counting: Permutations & Combinations · 22

Evaluate 8!

Counting: Permutations & Combinations · 23

You have 4 shirts, 5 pairs of pants and 3 pairs of shoes. How many different outfits can you make?

Counting: Permutations & Combinations · 24

You have 6 shirts, 5 pairs of pants and 3 pairs of shoes. How many different outfits can you make?

Counting: Permutations & Combinations · 18

ANSWER

360

Counting: Permutations & Combinations · 17

ANSWER

720

Counting: Permutations & Combinations · 20

ANSWER

30

Counting: Permutations & Combinations · 19

ANSWER

990

Counting: Permutations & Combinations · 22

ANSWER

40320

Counting: Permutations & Combinations · 21

ANSWER

210

Counting: Permutations & Combinations · 24

ANSWER

90

Counting: Permutations & Combinations · 23

ANSWER

60