



Good morning! I have 10 desks in my classroom. How many different ways can I group them?

Mr Strict has 10 desks and likes to arrange them in different equal groups for different lessons. He used an organised method to work out how many ways he could do this, using factors.

His results:

Try 1: $1 \times 10 = 10$ 1 and 10 are factors of 10

Try 2: $2 \times 5 = 10$ 2 and 5 are factors of 10

Try 3: $3 \times ?? = 10$ 3 is not a factor of 10 (so he cannot have 10 tables in 3 equal groups)

Try 4: $4 \times ?? = 10$ 4 is not a factor of 10 (so he cannot have 10 tables in 4 equal groups)

Try 5: 5 is already known to be a factor of 10

Mr Strict can only group his tables in: 1 set of 10

2 sets of 5

5 sets of 2

10 sets of 1

1, 2, 5 and 10 are called **FACTORS** of 10.

Mrs Old has 12 desks. Using factors work out how many ways she could arrange them equally.

Try 1: $1 \times 12 =$



Answers

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Factors of 12 are: 1, 2, 3, 4, 6, and 12

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Factors of 24 are: 1, 2, 3, 4, 6, 8, 12 and 24