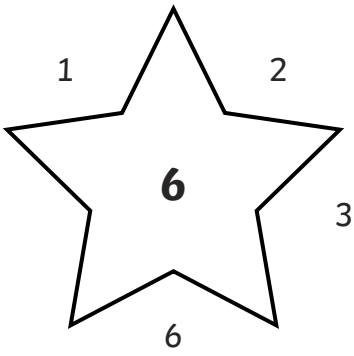
Factors

I can find pairs of factors for all the numbers in my multiplication tables up to 12 × 12.



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Factors **Answers**

Number for centre of star	Factors
6	1, 2, 3, 6
8	1, 2, 4, 8
12	1, 2, 3, 4, 6, 12
15	1, 3, 5, 15
18	1, 2, 3, 6, 9, 18
24	1, 2, 3, 4, 6, 8, 12, 24
36	1, 2, 3, 4, 6, 9, 12, 18, 36
40	1, 2, 4, 5, 8, 10, 20, 40

Factors

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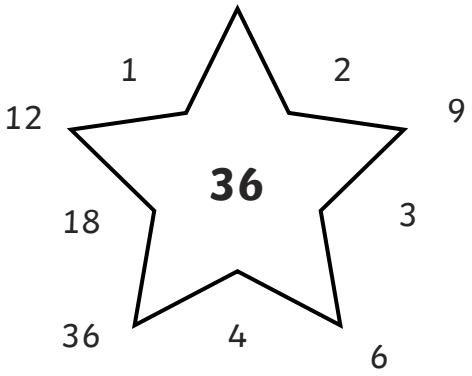


Factors

Odd One Out

1. Circle the number which does not have 6 as a factor.

   36, 30, 25, 18, 24, 42

2. Circle the number which does not have 9 as a factor.

   36, 27, 34, 18, 90, 45

3. Circle the number which does not have 12 as a factor.

   36, 48, 26, 120, 132, 84

Factor Problems

1. Amaya is making party bags for her party. She has bought 24 balloons. List all the ways she can make party bags so that each bag has the same number of balloons in it. For example, she could have 24 bags with one balloon in each bag, or two bags with 12 balloons in each bag. How many more possibilities can you find?

2. Tyler has 16 sheep. He must put the same number of sheep in each field.
   How many different ways can you find to group the sheep?

Factors **Answers**

Number for centre of star	Factors
36	1, 2, 3, 4, 6, 9, 12, 18, 36
42	1, 2, 3, 6, 7, 14, 21, 42
50	1, 2, 5, 10, 25, 50
64	1, 2, 4, 8, 16, 32, 64
72	1, 2, 3, 4, 6, 8, 9, 12,18, 24, 36, 72

Odd One Out

1. Circle the number which does not have 6 as a factor.
   36, 30, (25), 18, 24, 42
2. Circle the number which does not have 9 as a factor.
   36, 27, (34), 18, 90, 45
3. Circle the number which does not have 12 as a factor.
   36, 48, (26), 120, 132, 84

Factor Problems

1. Amaya is making party bags for her party. She has bought 24 balloons. List all the ways she can make party bags so that each bag has the same number of balloons in it. For example, she could have 24 bags with one balloon in each bag, or two bags with 12 balloons in each bag. How many more possibilities can you find?

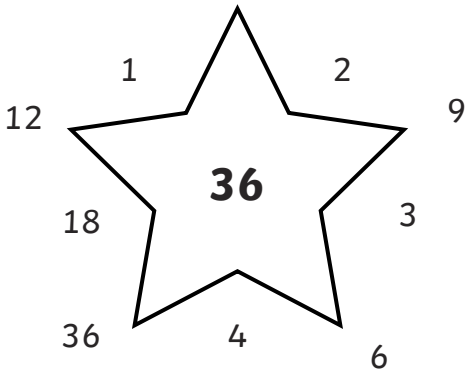
   1× 24, 2×12, 3 × 8, 4 × 6, 6 × 4, 8 × 3, 12 × 2, 1 × 24

2. Tyler has 16 sheep. He must put the same number of sheep in each field.
   How many different ways can you find to group the sheep?

   1 ×16, 2 × 8, 4 × 4, 8 × 2, 16 × 1

Factors

I can find pairs of factors for all the numbers in my multiplication tables up to 12 × 12.



Factors

Odd One Out

1. Circle the number which does not have 6 as a factor.

   36, 30, 72, 18, 76, 42

2. Circle the number which does not have 9 as a factor.

   36, 27, 96, 18, 90, 45

3. Circle the number which does not have 12 as a factor.

   36, 48, 126, 120, 132, 84

Factor Problems

1. Amaya is making party bags for her party. She has bought 32 balloons. List all the ways she can make party bags so that each bag has the same number of balloons in it. For example, she could have 32 bags with one balloon in each bag, or two bags with 16 balloons in each bag. How many more possibilities can you find?

2. Tyler has 42 sheep. He must put the same number of sheep in each field.
   How many different ways can you find to group the sheep?

Factors **Answers**

Number for centre of star	Factors
36	1, 2, 3, 4, 6, 9, 12, 18, 36
64	1, 2, 4, 8, 16, 32, 64
72	1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36, 72
82	1, 2, 41, 82
96	1, 2, 3, 4, 6, 8, 12, 16, 24, 32, 48, 96

Odd One Out

1. Circle the number which does not have 6 as a factor.
   36, 30, 72, 18, (76,) 42
2. Circle the number which does not have 9 as a factor.
   36, 27, (96,) 18, 90, 45
3. Circle the number which does not have 12 as a factor.
   36, 48, (126,) 120, 132, 84

Factor Problems

1. Amaya is making party bags for her party. She has bought 32 balloons. List all the ways she can make party bags so that each bag has the same number of balloons in it. For example, she could have 32 bags with one balloon in each bag or two bags with 16 balloons in each bag. How many more possibilities can you find?

   1 × 32, 2 ×16, 4 × 8, 8 × 4, 16 × 2, 32 ×1

2. Tyler has 42 sheep. He must put the same number of sheep in each field.
   How many different ways can you find to group the sheep?

   1 × 42, 2 × 21, 3 × 14, 6 × 7, 7 × 6, 14 × 3, 21 × 2, 42 × 1