

Maths Mastery

Multiples and Factors



Identify Multiples of...

How do you know a number is a multiple of 2?

The number is even – ends in 0, 2, 4, 6 or 8

How do you know a number is a multiple of 3?

The digital root is 3, 6 or 9 (add the digits until you get a single digit)

How do you know a number is a multiple of 4?

The last 2 digits are in the 4 times table.

How do you know a number is a multiple of 5?

The last digit is 5 or 0.

How do you know a number is a multiple of 6?

The digital root is 3, 6 or 9 and the number is even.

How do you know a number is a multiple of 9?

The digital root is 9.

How do you know a number is a multiple of 10?

The last digit is 0

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Answers

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Factor Pairs

Explain how you would find all the factor pairs of 36 to make sure you have found them all.

Compare your answer with a partner. Can you improve your explanations?

Start with 1 and the number itself - 36. Write either end of the list.

1

36

Work through each number to see if it one of a pair. In this case 2×18 , 3×12 , 4×9 . 5 is not a factor. 6×6 . This is the last pair as the numbers from 1 and from 36 have met at 6.

1

2

3

4

6

9

12

18

36



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Answers



Common Factors

Name one common factor of 28 and 54, explaining how you know.

Can you find the highest common factor of 28 and 54?

Both numbers are even, so 2 is a common factor.

The highest common factor is 2.

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Answers

Common Factors

Name one common factor of 35 and 60, explaining how you know.

Can you find the highest common factor of 35 and 60?

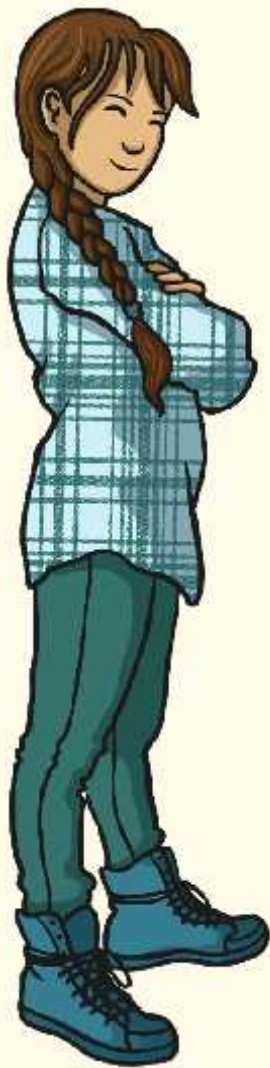
Both numbers end in 5 or 0, so 5 is a common factor.

The highest common factor is 5.



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Answers

Common Factors



Name one common factor of 42 and 75, explaining how you know.

Write some numbers for which a partner should find common factors.

The digital root of 42 is 6 ($4 + 2 = 6$)
The digital root of 75 is 3 ($7 + 5 = 12, 1 + 2 = 3$)

Both numbers have a digital root of 3, 6 or 9, so 3 is a common factor. Note 6 is not a common factor as 75 is odd.

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Answers

