# Maths Mastery Challenge Cards

Multiples and Factors

Identify Multiples of...

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

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

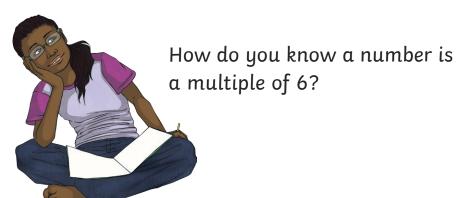
How do you know a number is a multiple of 4?



Multiples and Factors

Identify Multiples of...

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



Multiples and Factors

Identify Multiples of...

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

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





Multiples and Factors

### **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?

Multiples and Factors

# 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?



Multiples and Factors

# **Common Factors**

Name one common factor of 40 and 75, explaining how you know.

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



Multiples and Factors

# 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?



# Maths Mastery Challenge Cards Answers

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.

Multiples and Factors

Identify Multiples of...

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.

Multiples and Factors

Identify Multiples of...

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



Multiples and Factors

# 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.

Multiples and Factors

# 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.

Multiples and Factors

#### Common Factors

Name one common factor of 40 and 75, explaining how you know.

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

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

The highest common factor is 5.

Multiples and Factors

# 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 30

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