

Multiples and factors

Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers



Challenge 1

The multiples are all jumbled up. Sort them into multiples of 6, 7, 8 and 9. Numbers can belong to more than one group.

6 18 54 42 30 21 56
49 64 32 72 81 63 36 45

In each bag, find the numbers that are factors of the number on the label.

Hint
A factor is a whole number that divides exactly into another whole number.

40 42 28
25 30 60

Challenge 2

Write all of the factors of these pairs of numbers. Find and circle the common factors of both numbers.

- 24, 30 36, 64 56, 80
- 45, 18 32, 48 60, 100
- 28, 42 20, 54 50, 35
- 34, 51 56, 24 72, 20

Write the first eight multiples for these pairs of numbers. Find and circle the common multiples in each pair.

- 3, 4 4, 5 3, 6
- 4, 6 12, 16 15, 25
- 25, 50 8, 12 6, 9

Example

36, 40
36: 1, 2, 3, 4, 6, 9, 12, 18, 36
40: 1, 2, 4, 5, 8, 10, 20, 40

Example

2, 3
2: 2, 4, 6, 8, 10, 12, 14, 16
3: 3, 6, 9, 12, 15, 18, 21, 24

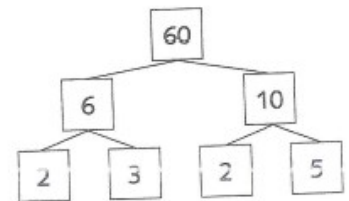


Challenge 3

Draw three different factor trees for each of these numbers.

24 48 64
36 72

Example



What do you notice about the three factor trees for each number?

Make your own factor trees. Choose a number between 100 and 200. See how many different factors of each number you can find by drawing more than one factor tree.

