

Investigation

Multiples and factors



- Choose two of these numbers. Find and write down numbers which are a **common multiple** of them both.
e.g. Choose 4 and 5. 20, 40, 60, 80 and 100 are all multiples of 4 and 5.
- 20 is the **lowest common multiple** of 4 and 5.
- Repeat, each time choosing a different pair of numbers.
- Score 1 point for each common multiple that you can find. How quickly can you score 50 points?

Tara said that to find the *lowest* common multiple of *any* pair of numbers you can multiply the two numbers. Is she correct? Use some of your own answers to explain this.

Dylan said that once he has found a common multiple of two numbers, he can *double* the number and he will have another common multiple! Is he correct? Use some of your own answers to explain this.

Challenge

- Choose two of the numbers; use them to make a pair of two 2-digit numbers. e.g. Choose 2 and 7 and make 27 and 72.
- Find the factors of each number:
27: 1, 3, 9 and 27 (4 factors).
72: 1, 2, 3, 4, 6, 8, 9, 12, 18, 24, 36 and 72 (12 factors).
- Choose further numbers and repeat.
- Does the **larger** number of the pair **always** have the most factors?