Common Factor Challenge

Purpose:
The purpose of this activity is to help your child practice finding common factors of pairs of numbers. This activity assumes that your child can identify factors of numbers (numbers that divide evenly into a number with no remainder).

Link to Number Framework:
Number Facts, Stages 7-8

What you need:

- A deck of cards with the face cards and jokers removed (aces count as 1s and 10s count as 0s).
- Pen and paper.

What to do:

- Shuffle the cards and deal out two pairs of cards face up. These represent two 2-digit numbers
- Ask your child to name the factors of each. Factors are numbers that divide evenly into a number with no remainder (eg. the factors of 6 are 1, 2, 3, and 6). Factors come in pairs that multiply together to give the number. Every number has at least 1 and itself as factors.
- You may want to list the factors of each number on a piece of paper. If either of the numbers have only 1 and themselves as factors, then they are called prime numbers.
- Ask your child to identify the common factors of the two numbers - if there are any.
- Repeat the steps above with more random pairs of numbers. Encourage your child to quickly identify some common factors without listing all factors, for example:
    - All pairs of numbers have 1 as a common factor
    - If both numbers are even they have 2 as a common factor
    - If both numbers end in either 0 or 5 then they have 5 as a common factor
    - If both numbers end in 0 then they have 2 and 5 as common factors

What to expect your child to do:

- Use and understand terms such as factors, prime numbers, multiples
- Be able to identify factors of numbers

Variations:

- This could be played as a game with a point given for each common factor found for a pair of numbers

Related Māori vocab:

two digit number	tau mati-rua
calculator	tātaitai
factor	tauwehe
divide	whakawehe (-a)
common factor	tauwehe pātahi
prime number	tau toitū