

And use algorithms involving a sequence of steps and decisions...

create and use algorithms involving a sequence of steps and decisions and digital tools to experiment with factors, multiples and divisibility; identify, interpret and describe emerging patterns

Learning intention

- create and use algorithms involving a sequence of steps and decisions and digital tools to experiment with factors, multiples and divisibility; identify, interpret and...

Teach and model

- creating algorithms that use multiplication and division facts to determine if a number is a multiple or factor of another number; for example, using a flow chart that determines...
- identifying lowest common multiples and highest common factors of pairs or triples of natural numbers; for example, the lowest common multiple of {6, 9} is 18, and the...
- using the “fill down” function of a spreadsheet and a multiplication formula to generate a sequence of numbers that represent the multiples of any number you...

Check understanding

- Explain the main idea in and use algorithms involving a sequence of steps and decisions... using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.