

Graph linear relations on the Cartesian plane using digital tools...

graph linear relations on the Cartesian plane using digital tools where appropriate; solve linear equations and one-variable inequalities using graphical and algebraic techniques; verify solutions by substitution

Learning intention

- graph linear relations on the Cartesian plane using digital tools where appropriate; solve linear equations and one-variable inequalities using graphical and algebraic...

Teach and model

- recognising that in a table of values, if the first difference between consecutive values of the dependent variable is constant, then it is a linear relation
- graphing linear functions and relations of the form $x \leq a$, $x \geq a$, $y \leq a$, $y \geq a$ on the Cartesian plane for known values of a
- completing a table of values, plotting the resulting points on the Cartesian plane and determining whether the relationship is linear

Check understanding

- Explain the main idea in graph linear relations on the cartesian plane using digital tools... 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.