ASPIRE TO POWER LEARNING

Year 7 | Algebra

Patterns, tables and graphs

Learn and practise | Free preview

A sample from this topic. The complete topic collection contains three different resources and worked solutions.

Read the explanation and worked example. Show your working; use a calculator only where asked.

What you will practise

• Link rules, tables, coordinates and the story a graph tells.

• Explain a method and check the reasonableness of a result.

Useful starting skills: Use the prerequisite operations and representations shown in the worked example.

The independent variable is the input and is usually on the horizontal axis. The dependent variable is the output. Generate a table by applying the rule to each input.

Graph shapes describe change: a horizontal segment means no change in the vertical quantity. A steep line means a large change per horizontal unit; read axis scales before interpreting it.

Worked example

Generate points for $y = 2x + 1$ using $x = 0,1,2$.

Substitute the three inputs.

Plot ordered pairs with x first.

Answer: (0,1), (1,3), (2,5)

Try it yourself

Name: _____ Date: _____

1. Complete y=3x for x=0,1,2,3.

2. Find a rule for x=1,2,3 with y=5,7,9.

Answers and explanations

Check the method as well as the final answer. An alternative correct method is also valid.

1. 0,3,6,9

Multiply each input by 3.

2. y = 2x + 3

Output rises by 2; at x=0 it is 3.

Curriculum reference: VC2M7A04; VC2M7A05

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