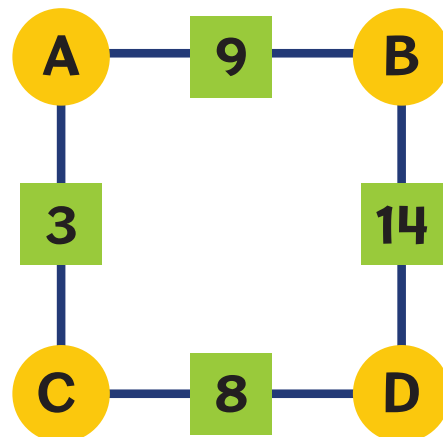


30 ARITHMAGONS

This is an arithmagon.
The number in each square is
the sum of the numbers in the
circles on either side of it.



- a What could the numbers
A, **B**, **C** and **D** be?
Is there more than
one answer?

- b Amanda wrote

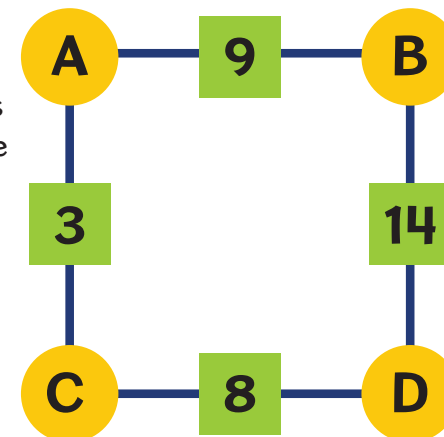
$$\begin{aligned} A + B &= 9 \\ A + B + C + D &= 17 \\ B &= 9 - A \end{aligned}$$

Write some more relationships between **A**, **B**, **C** and **D**.

- c Are any of the relationships you have written equivalent?
Check that the relationships are true for all the sets of
possible values for **A**, **B**, **C** and **D** you have found.
- d For this investigation, numbers that worked had to be
found for the boxes.
How might they have been found?

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