

Notes: Shape sums

7 to 9

Solution and notes

Square: 5 Hexagon: 2
Circle: 4 Triangle: 1

This can be solved by trial and error but it helps to add pairs of equations. For example,

Add the fourth to the fifth. This tells you that two squares total 10, so the value of the square is 5.

Add the second to the third. This tells you that two squares and two hexagons total 14, so the value of the hexagon is 2.

Add the third to the fourth. This tells you that two squares and two triangles total 12, so the value of the triangle is 1.

Check by substituting values in the first equation.

Extension

Try this one.

$$\bigcirc = \square + \square + \square$$

$$\triangle = \bigcirc + \square + \square$$

$$\hexagon = \bigcirc + \triangle + \square$$

$$30 = \hexagon + \triangle + \square$$

Since a circle equals 3 squares, a triangle equals 5 squares and a hexagon equals 9 squares. 30 is the sum of 15 squares, so a square has the value 2. The other values then follow.

Square: 2 Hexagon: 18
Circle: 6 Triangle: 10

Use symbols and identify relationships
Think logically and work out a strategy