

WITHOUT WORDS

Mathematical Puzzles to Confound and Delight



WW 32: SOLUTION

$$\blacksquare = \circ \circ \circ$$
$$\triangle = \circ \circ$$

$$\blacksquare = \triangle \circ$$
$$\triangle = \triangle$$

$$\blacksquare = \circ$$
$$\triangle = \circ$$

Following the idea of WW9 we want to make the scales balance.

In the first diagram we need a square to be the same weight as three circles and a triangle the same weight as two.

In the second diagram all we need is a square to have the same weight as one triangle and one circle. The weight of the triangle can be any value and is irrelevant.

In the third diagram, a square and a circle together have no weight, and so a square must be lighter than air (full of helium?) and have the anti-weight of one circle. A triangle has the weight of a third of a circle.