Balance-Scale Algebra: Solving for Unknown Weights

Original tasks 1, 2 / independent work

Task 1

A level balance scale has two identical squares and a 7-gram block on the left, and a 25-gram block on the right. Find the weight of one square.

Task 2

A level balance scale has five identical triangles on the left and a 35-gram block on the right. Find the weight of one triangle.

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Original tasks 3, 4 / independent work

Task 3

Scale one is level with one circle and one square on the left and a 20-gram block on the right. Scale two is level with two circles and one square on the left and a 28-gram block on the right. Find the weight of one circle and one square.

Task 4

A level balance scale has one circle and one square on the left and a 30-gram block on the right. No second scale is given. Describe all possible whole-number weights for the circle and square, and explain why one unique answer cannot be found.