

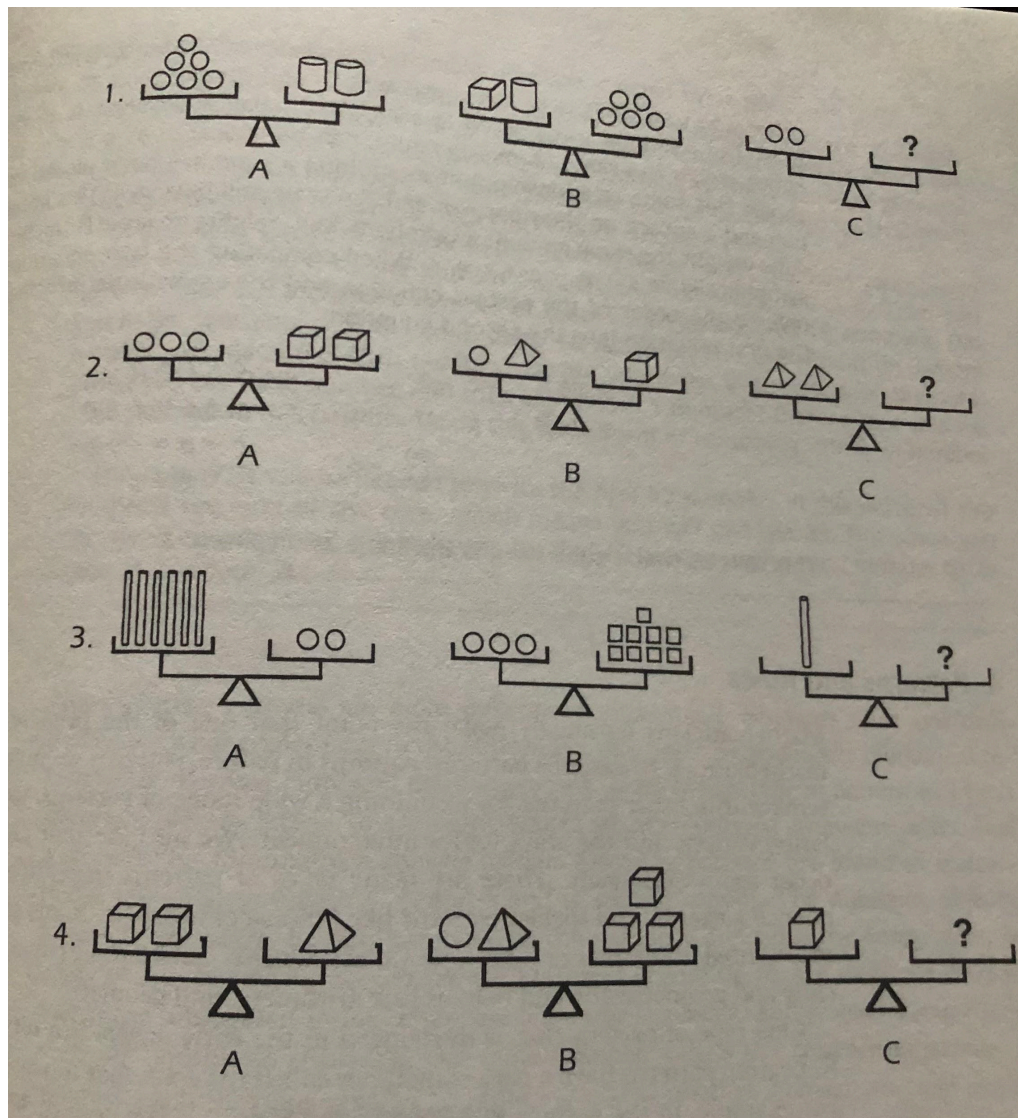
CONTENT:

ALGEBRA

1. BALANCE SCALES

Solve the balance scale problems below. On each of the balance scales, assume that the same shapes represent the same weights. In each problem, use the information from the balanced scales A and B to figure out what's needed to balance scale C.

1. ? = 1 square box
2. ? = 1 square box
3. ? = 3 small squares
4. ? = 1 circle



2. **EXPLORING SQUARE AND TRIANGULAR NUMBERS**

The dot arrays below represent the first four square numbers and the first four triangular numbers. Complete the fifth and sixth sequences in each pattern and then answer the following questions.

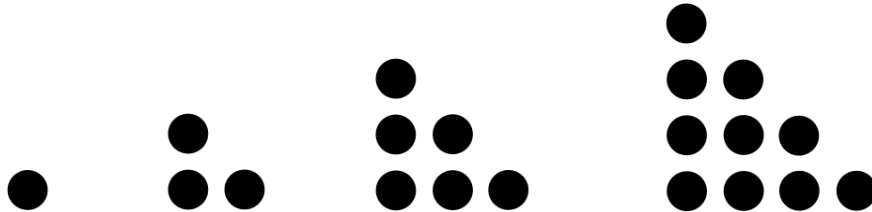
- 1. Describe the 10th square number. 100
- 2. How many dots are in each of the square arrays that represent the square numbers? List the number of dots in a t-chart. What patterns do you see?

Number	Dots
1	1
2	4
3	9
4	16
5	25
6	36
7	49
8	64
9	81
10	100



SQUARE NUMBERS

3. Describe the 10th triangular number. 55
4. How many dots are in each of the triangular arrays that represent the triangular numbers? List the number of dots in a t-chart. What patterns do you see?



TRIANGULAR NUMBERS

Number	Dots
1	1
2	3
3	6
4	10
5	15
6	21
7	28
8	36
9	45
10	55