



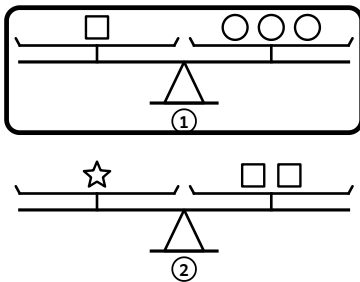
Learn a new puzzle

Balance Puzzles

A level scale means both sides weigh the same. Find how many shapes balance the last pan.

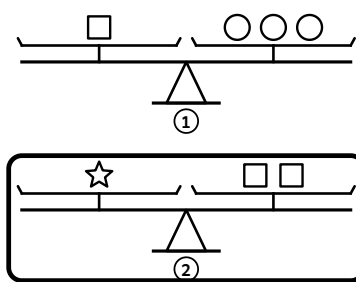
Trick: **Swap equal things**

1



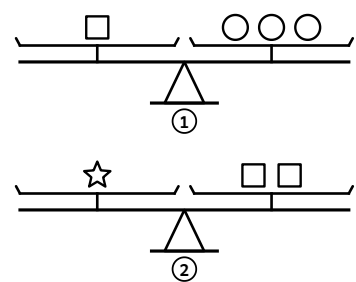
$$\star = \square \bigcirc$$

2



$$\star = \square \bigcirc$$

3



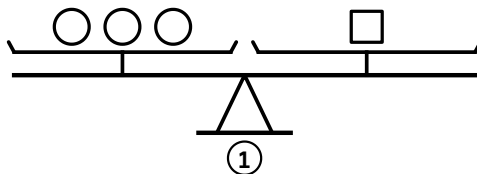
$$\star = 6 \bigcirc$$

Scale 1 shows 1 square = 3 circles. Both sides weigh the same.

Scale 2 shows 1 star = 2 squares. Swap each square for 3 circles.

So 1 star = 2 squares = 3 + 3 = 6 circles.

Try it



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

The answer is with the other answers.

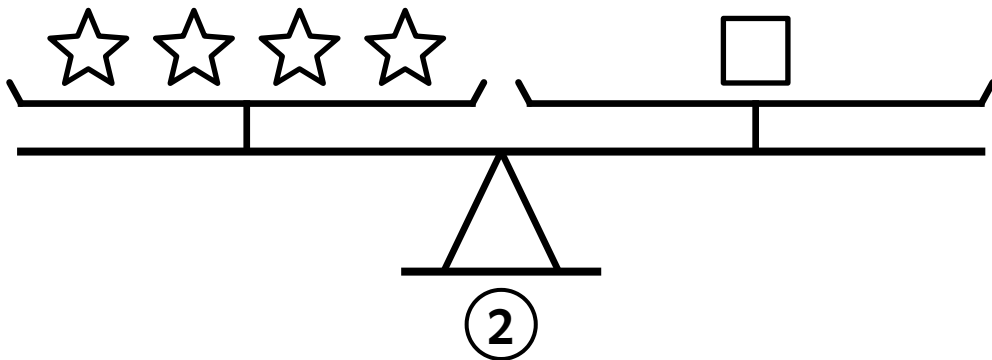
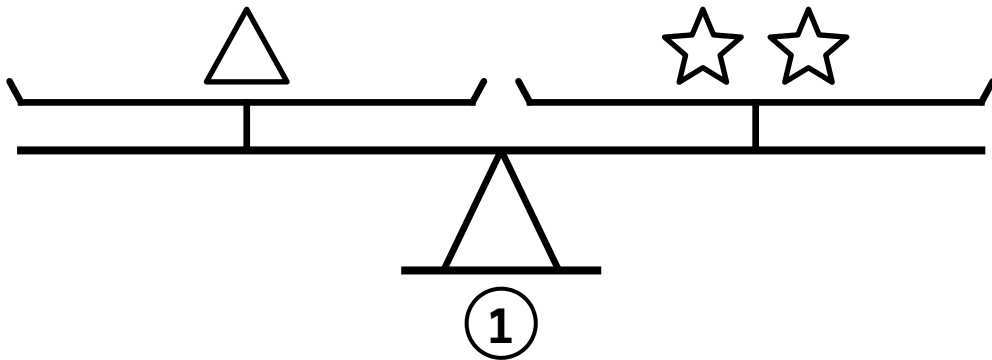
Talk about it: Ask: Which shapes could you swap to make it simpler?



1

Balance Puzzles

A level scale means both sides weigh the same. Find how many shapes balance the last pan.



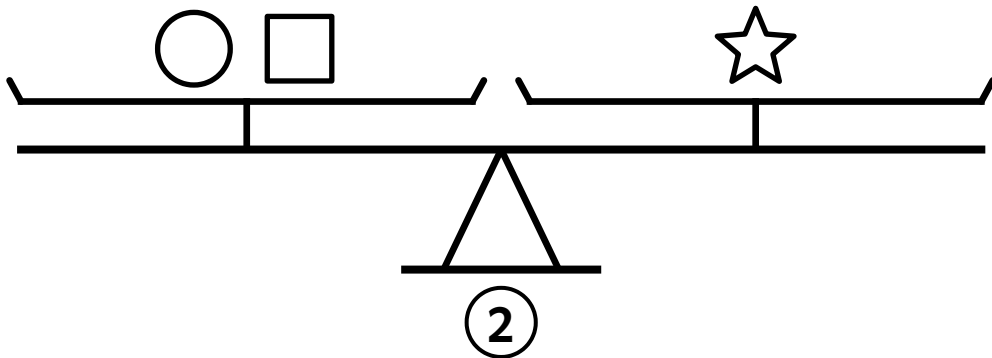
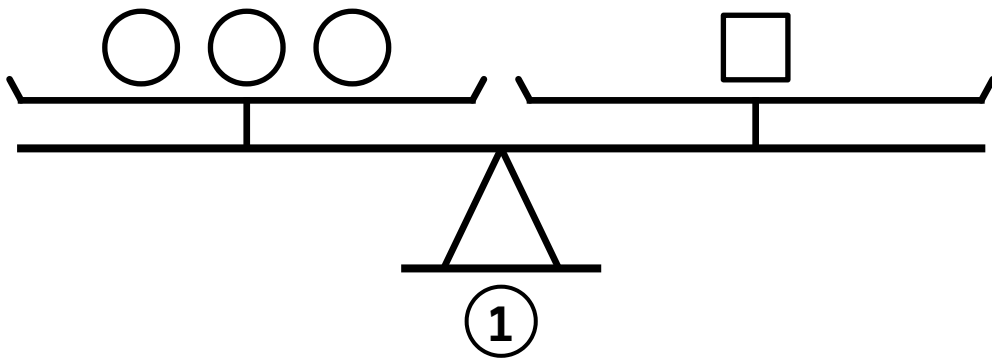
$$\triangle \triangle = \square \star$$



2

Balance Puzzles

A level scale means both sides weigh the same. Find how many shapes balance the last pan.



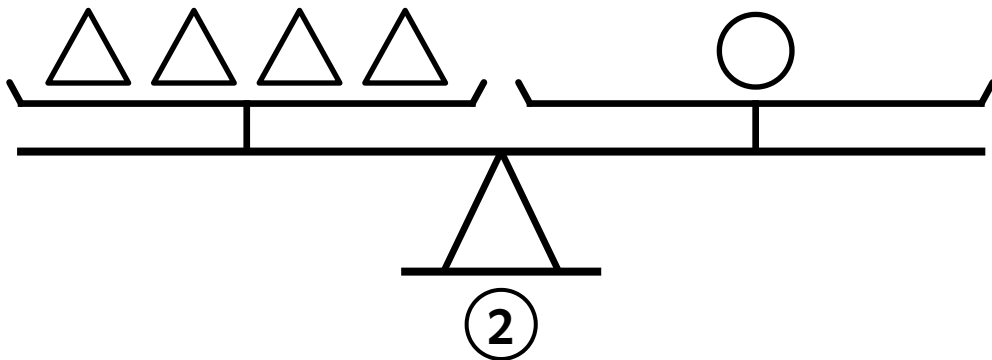
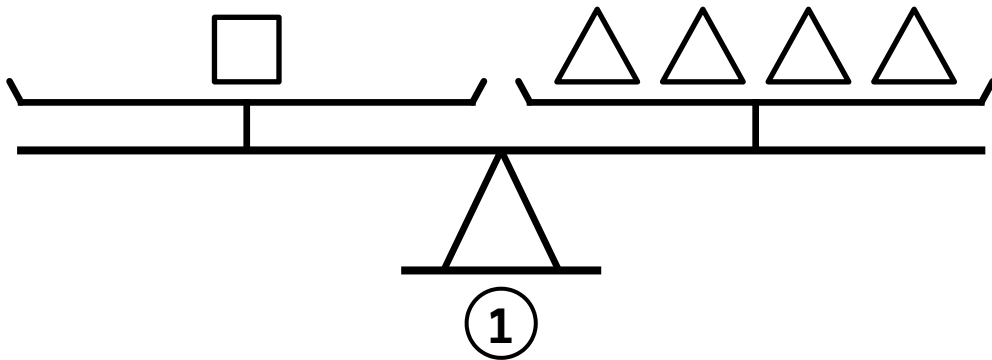
$$\square \square = \square \bigcirc$$



3

Balance Puzzles

A level scale means both sides weigh the same. Find how many shapes balance the last pan.



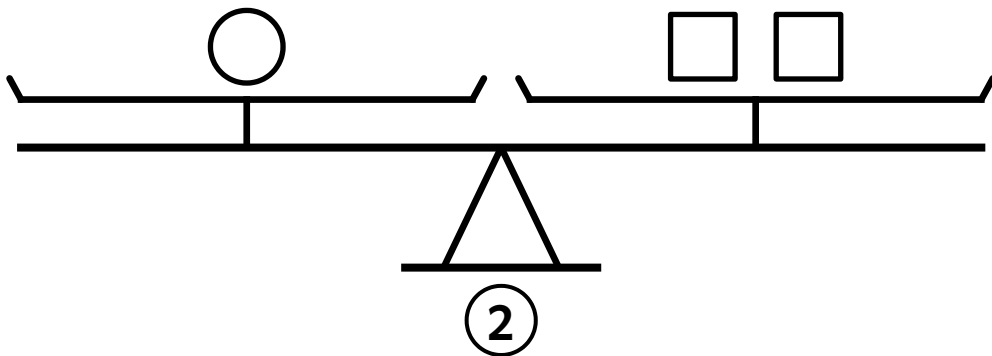
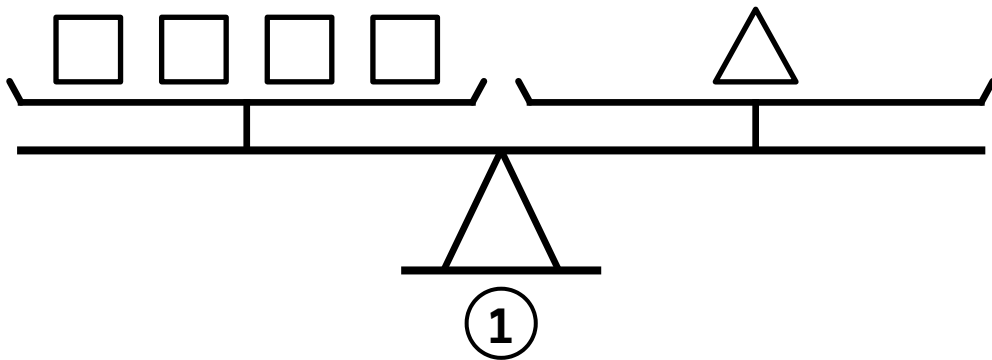
$$\bigcirc \square = \square \triangle$$



4

Balance Puzzles

A level scale means both sides weigh the same. Find how many shapes balance the last pan.



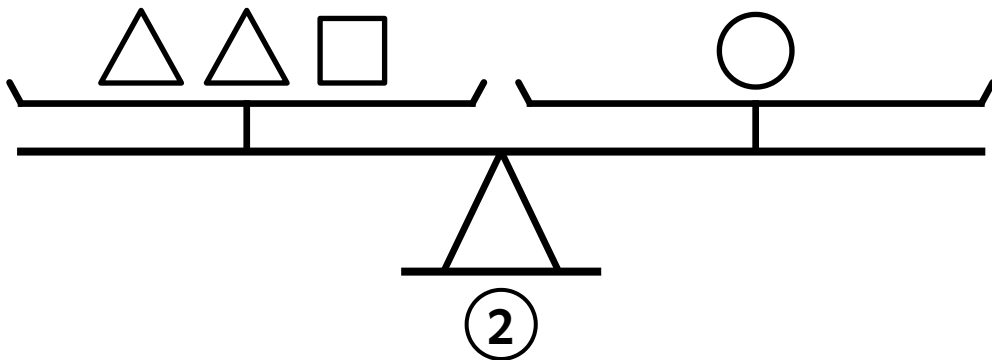
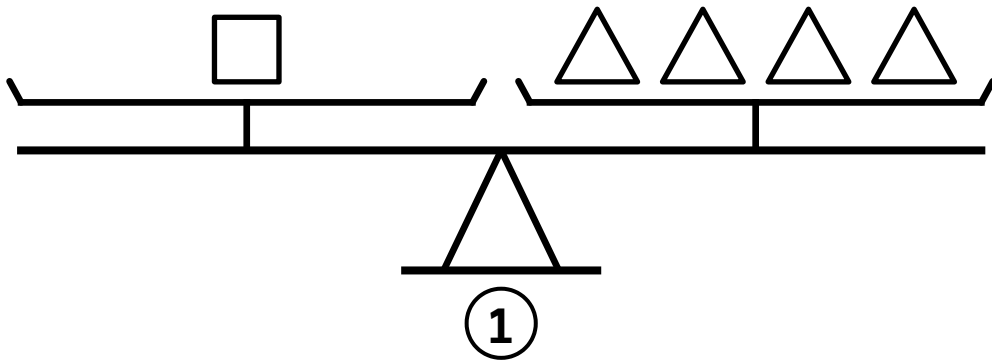
$$\bigcirc \triangle \triangle = \square \square$$



5

Balance Puzzles

A level scale means both sides weigh the same. Find how many shapes balance the last pan.



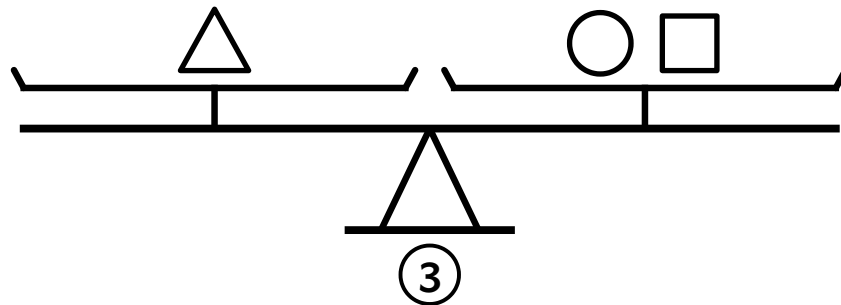
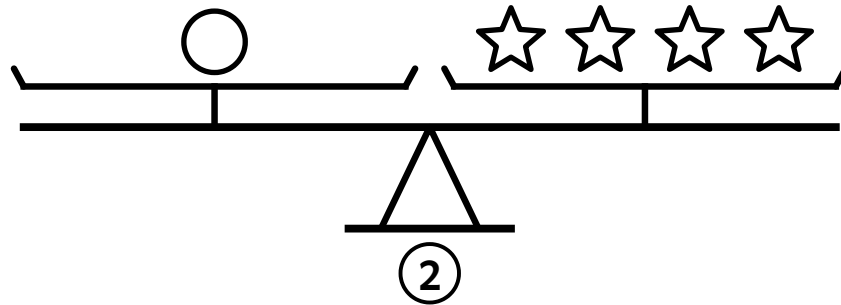
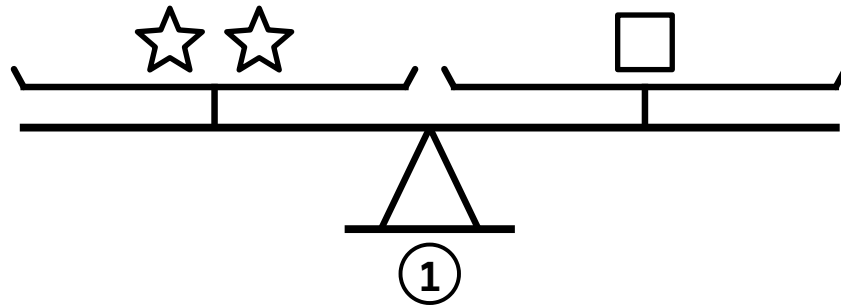
$$\bigcirc = \square \triangle$$



6

Balance Puzzles

A level scale means both sides weigh the same. Find how many shapes balance the last pan.



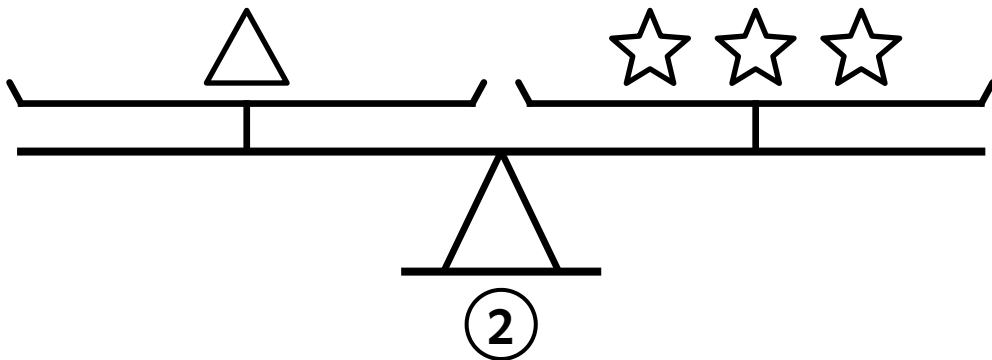
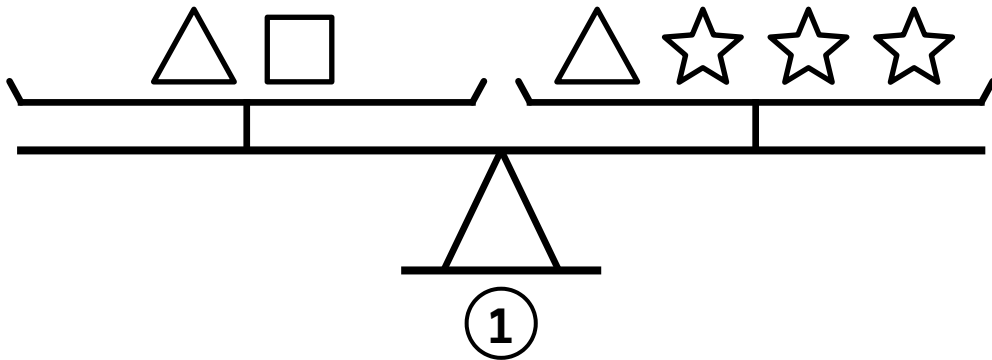
$$\triangle = \square \star$$



7

Balance Puzzles

A level scale means both sides weigh the same. Find how many shapes balance the last pan.



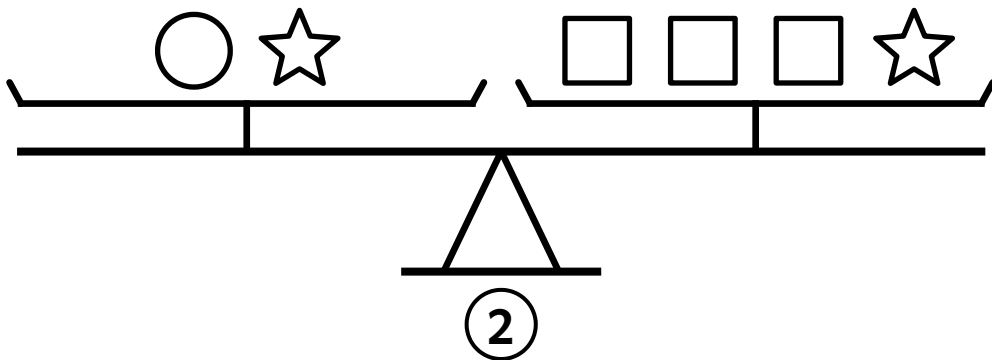
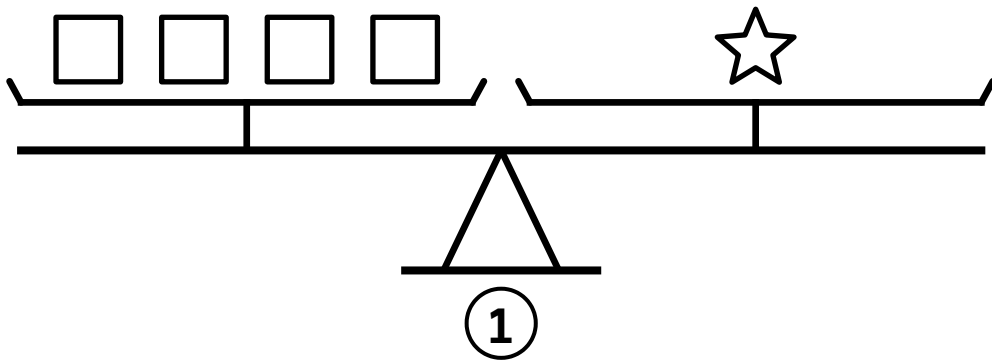
$$\triangle \square = \square \star$$



8

Balance Puzzles

A level scale means both sides weigh the same. Find how many shapes balance the last pan.



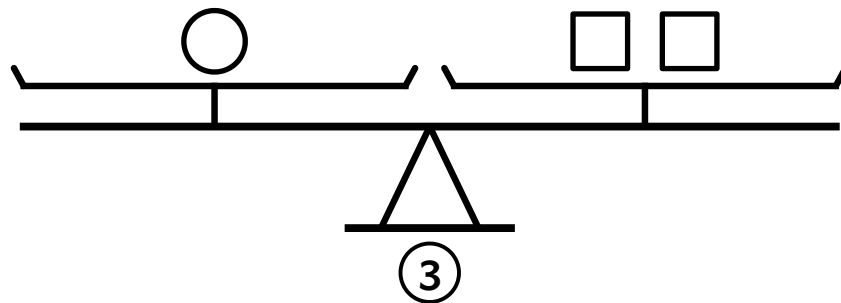
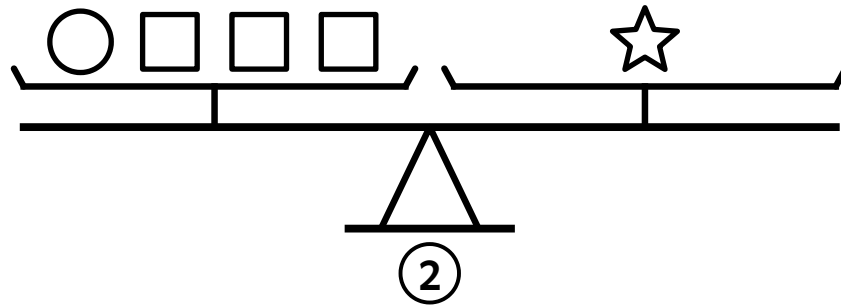
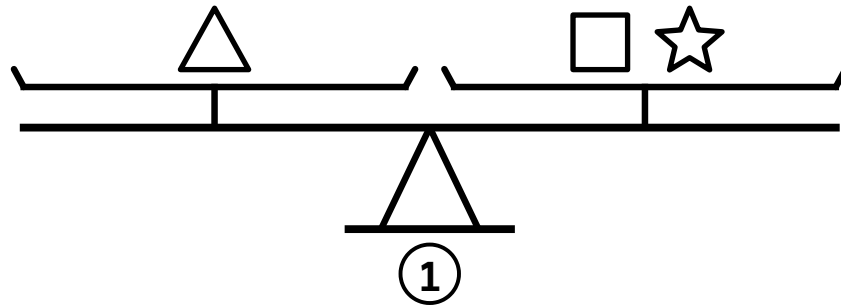
$$\bigcirc \star = \square \square$$



9

Balance Puzzles

A level scale means both sides weigh the same. Find how many shapes balance the last pan.



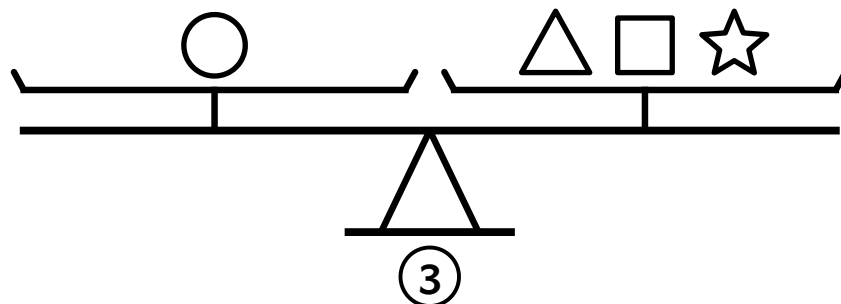
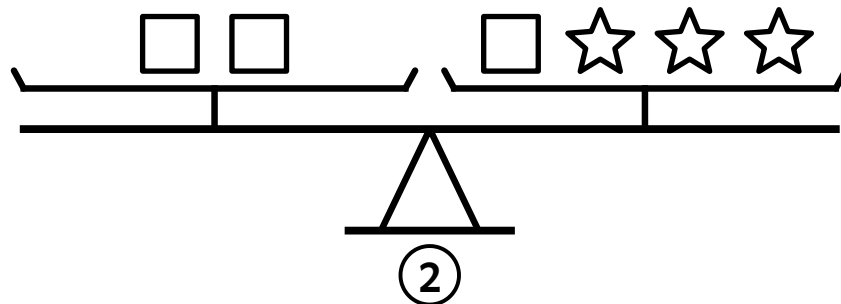
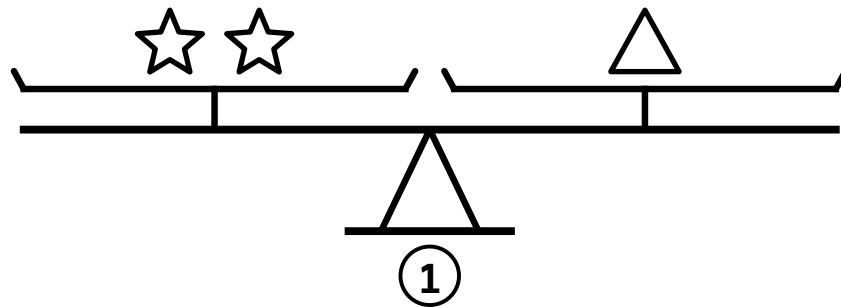
$$\triangle = \square \square$$



10

Balance Puzzles

A level scale means both sides weigh the same. Find how many shapes balance the last pan.



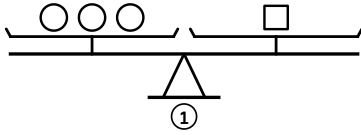
$$\bigcirc = \square \star$$



Answers

For grown-ups. Cut off or keep this page aside until the puzzles are done.

Learn · Balance Puzzles



$$\square \square = \boxed{6} \bigcirc$$

#1

$$\triangle \triangle = \boxed{4} \star$$

Scale 1 shows 1 triangle = 2 stars. So
2 triangles = 2 + 2 = 4 stars.

#2

$$\square \square = \boxed{6} \bigcirc$$

Scale 1 shows 1 square = 3 circles. So
2 squares = 3 + 3 = 6 circles.

#3

$$\bigcirc \square = \boxed{8} \triangle$$

Scale 1 shows 1 square = 4 triangles
and scale 2 shows 1 circle = 4
triangles. So 1 circle + 1 square = 4 + 4
= 8 triangles.

#4

$$\bigcirc \triangle \triangle = \boxed{10} \square$$

Scale 1 shows 1 triangle = 4 squares
and scale 2 shows 1 circle = 2 squares.
So 2 triangles + 1 circle = 4 + 4 + 2 = 10
squares.

#5

$$\bigcirc = \boxed{6} \triangle$$

Scale 1 shows 1 square = 4 triangles.
So 1 circle = 2 triangles + 1 square = 2
+ 4 = 6 triangles.

#6

$$\triangle = \boxed{6} \star$$

Scale 2 shows 1 circle = 4 stars. So 1
triangle = 1 circle + 1 square = 4 + 2 =
6 stars.

#7

$$\triangle \square = \boxed{6} \star$$

Take 1 triangle off both sides of scale
1. Then 1 square = 3 stars.

#8

$$\bigcirc \star = \boxed{7} \square$$

Take 1 star off both sides of scale 2.
Then 1 circle = 3 squares.

#9

$$\triangle = \boxed{6} \square$$

Scale 3 shows 1 circle = 2 squares. So
1 star = 3 squares + 1 circle = 3 + 2 = 5
squares.

#10

$$\bigcirc = \boxed{6} \star$$

Take 1 square off both sides of scale
2. Then 1 square = 3 stars.