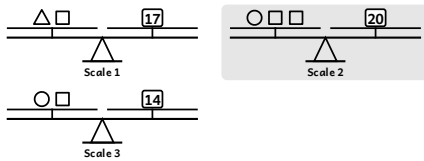




Learn a new puzzle

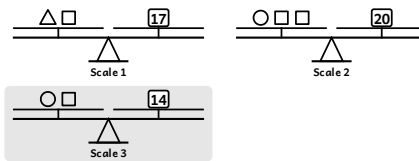
Balance Puzzles

Each scale is level: both sides weigh the same. Find what each of the three shapes weighs.

Trick: Take away, then work along**1**

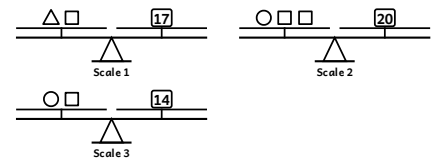
$$\square = \square \quad \bigcirc = \square \quad \triangle = \square$$

Both sides of each scale weigh the same. Find a scale that has everything another scale has, and more.

2

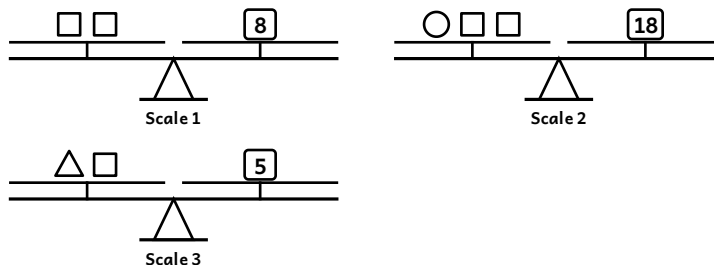
$$\square = 6 \quad \bigcirc = \square \quad \triangle = \square$$

Take scale 3 away from scale 2: what is left, 1 square, weighs 6. So 1 square weighs 6.

3

$$\square = 6 \quad \bigcirc = 8 \quad \triangle = 11$$

On scale 1, the square is 6, so 1 triangle weighs 11. On scale 2, the square is 6, so 1 circle weighs 8.

Try it

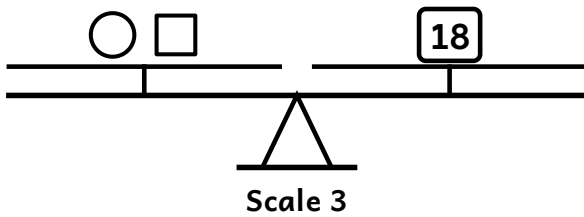
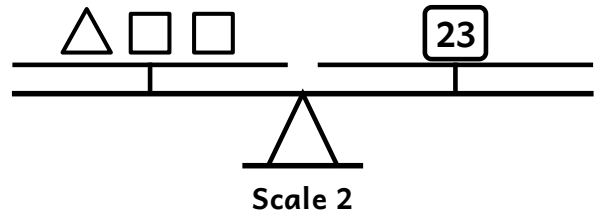
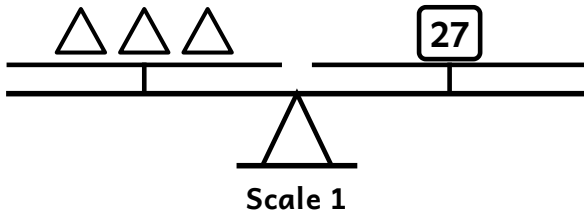
$$\square = \square \quad \bigcirc = \square \quad \triangle = \square$$

The answer is with the other answers.

Talk about it: Ask: Once you know one shape, which scale tells you the next?

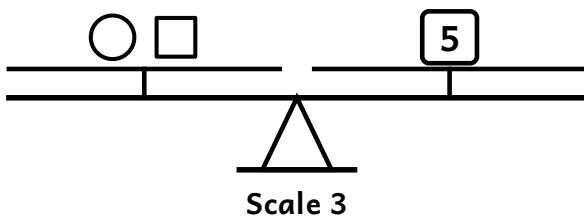
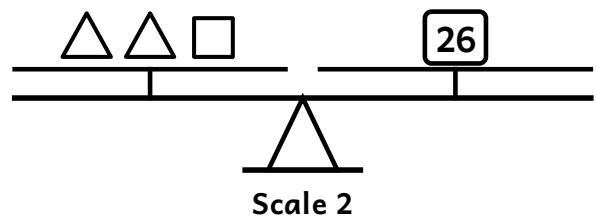
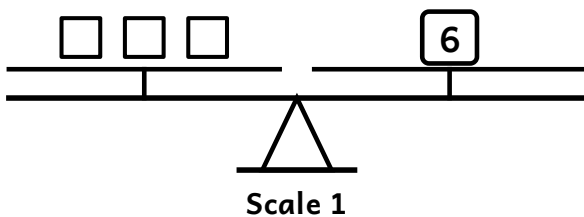


1 Balance Puzzles Each scale is level. Find what each shape weighs.



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

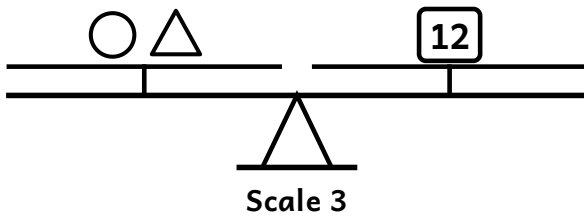
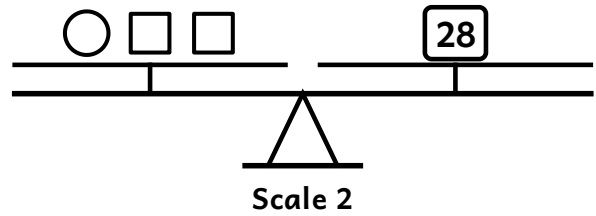
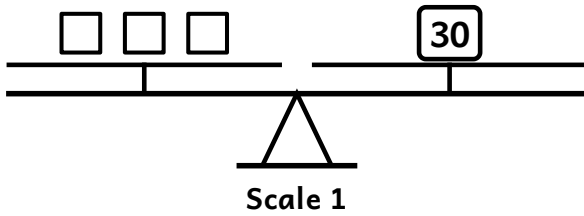
2 Balance Puzzles Each scale is level. Find what each shape weighs.



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

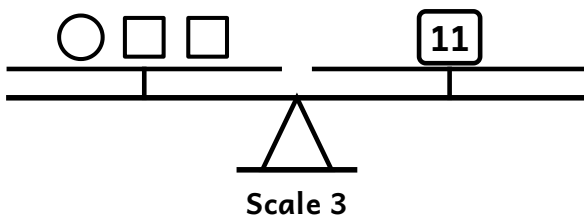
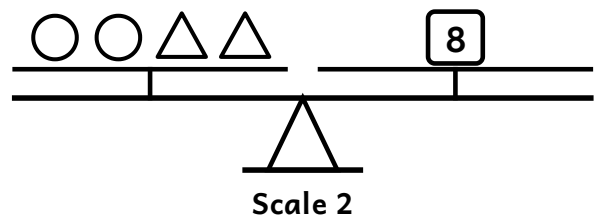
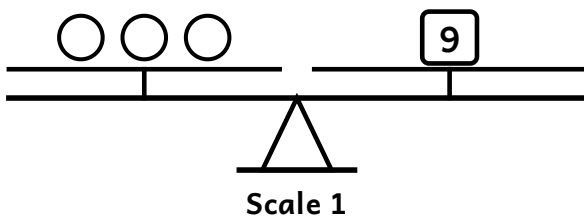


3 Balance Puzzles Each scale is level. Find what each shape weighs.



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

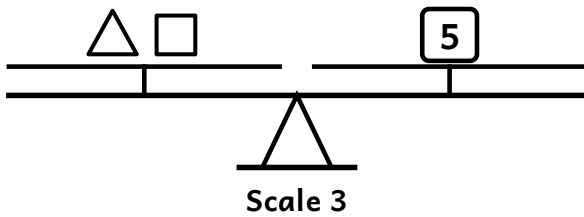
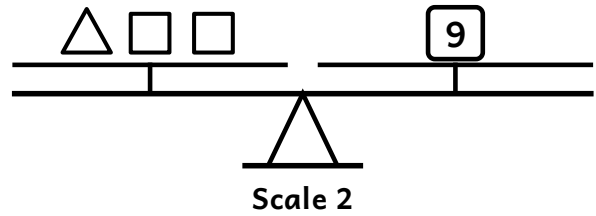
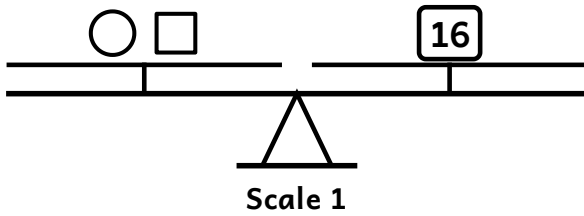
4 Balance Puzzles Each scale is level. Find what each shape weighs.



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

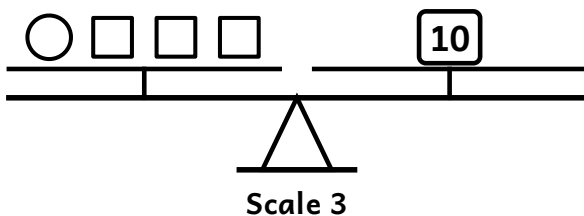
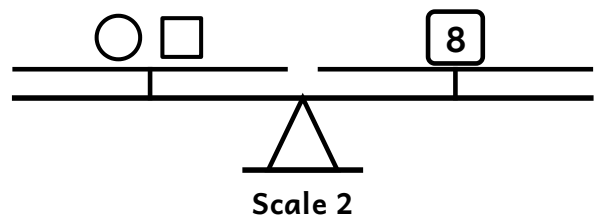
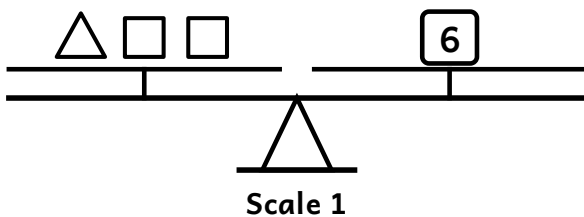


5 Balance Puzzles Each scale is level. Find what each shape weighs.



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

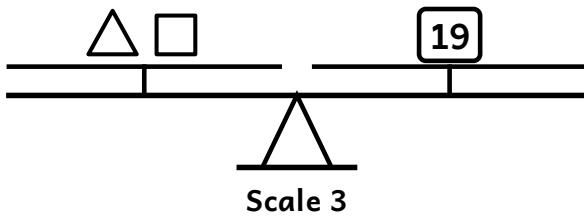
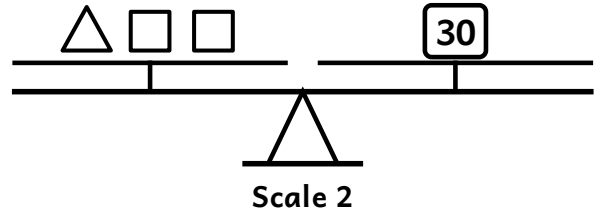
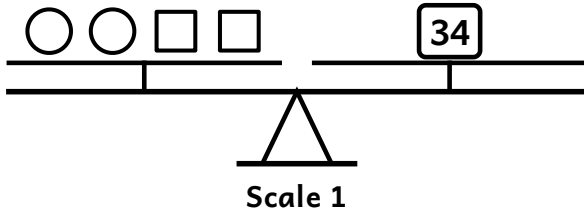
6 Balance Puzzles Each scale is level. Find what each shape weighs.



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

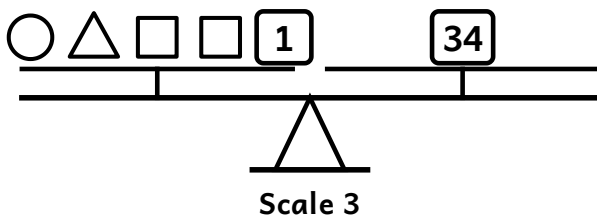
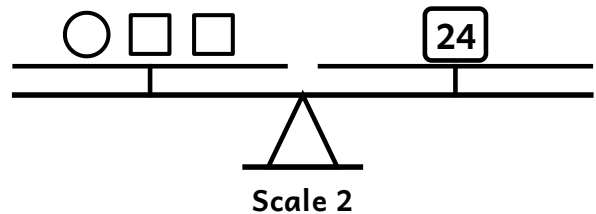
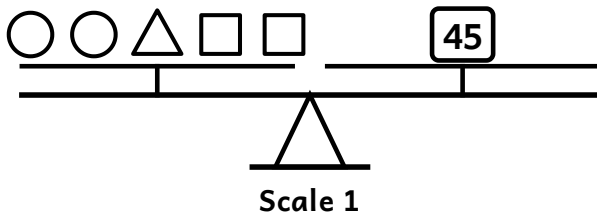


7 Balance Puzzles Each scale is level. Find what each shape weighs.

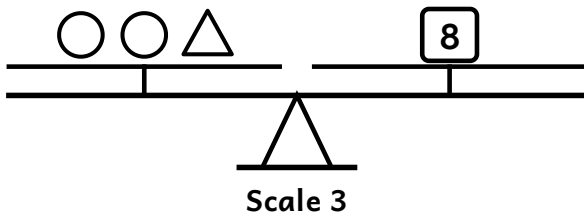
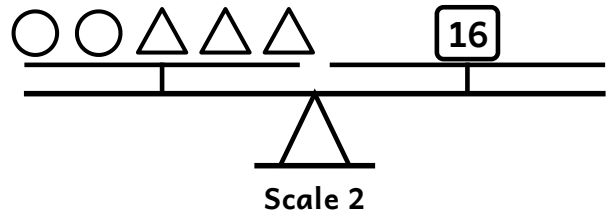
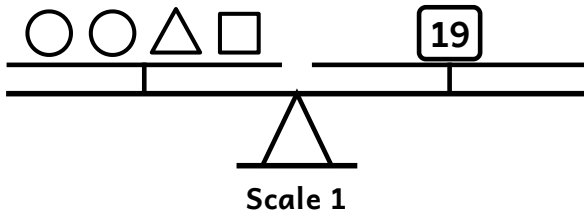


$\square = \square$ $\bigcirc = \square$ $\triangle = \square$

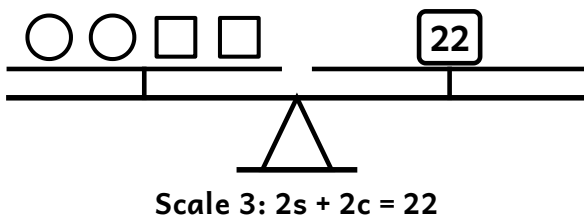
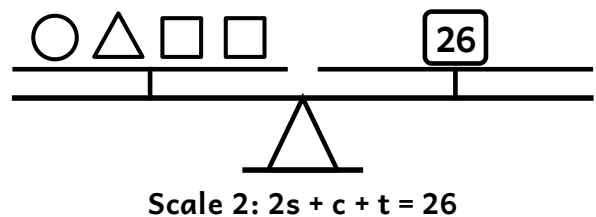
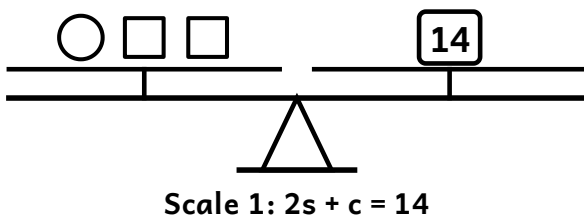
8 Balance Puzzles Each scale is level. Find what each shape weighs.



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

**9****Balance Puzzles** Each scale is level. Find what each shape weighs.

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

10**Balance Puzzles** Each scale is level. s is a square, c a circle, t a triangle. Find what each shape weighs.

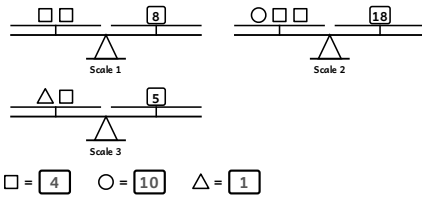
$$\square = \square \quad \bigcirc = \square \quad \triangle = \square$$



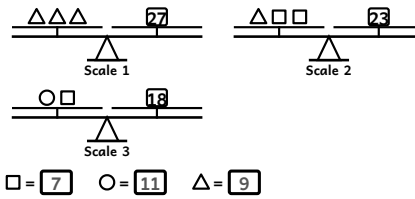
Answers

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

Learn · Balance Puzzles

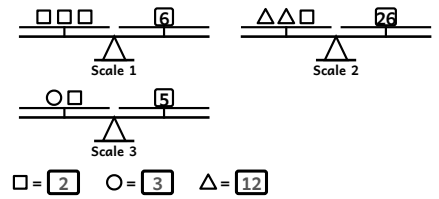


#1



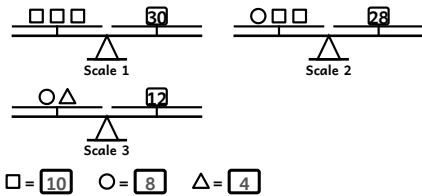
On scale 1, 3 triangles weigh 27: 1 triangle weighs $27 \div 3 = 9$. On scale 2, the triangle is 9, so 2 squares weigh $23 - 9 = 14$: 1 square weighs $14 \div 2 = 7$. On scale 3, the square is 7, so 1 circle weighs $18 - 14 = 4$.

#2



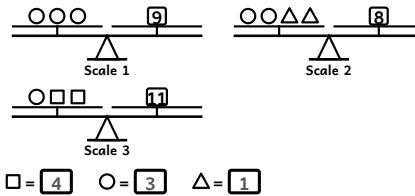
On scale 1, 3 squares weigh 6: 1 square weighs $6 \div 3 = 2$. On scale 2, the square is 2, so 2 triangles weigh $26 - 2 = 24$: 1 triangle weighs $24 \div 2 = 12$. On scale 3, the square is 2, so 1 circle weighs $5 - 4 = 1$.

#3



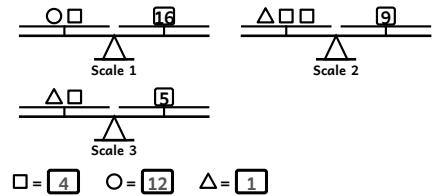
On scale 1, 3 squares weigh 30: 1 square weighs $30 \div 3 = 10$. On scale 2, the square is 10, so 1 circle weighs $28 - 20 = 8$. On scale 3, the circle is 8, so 1 triangle weighs $12 - 8 = 4$.

#4



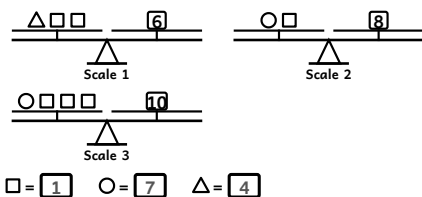
On scale 1, 3 circles weigh 9: 1 circle weighs $9 \div 3 = 3$. On scale 2, the circle is 3, so 2 triangles weigh $8 - 3 = 5$: 1 triangle weighs $5 \div 2 = 2.5$. On scale 3, the circle is 3, so 2 squares weigh $11 - 3 = 8$: 1 square weighs $8 \div 2 = 4$.

#5



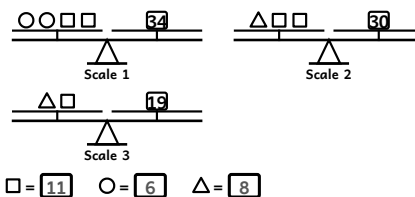
Take scale 3 away from scale 2: what is left, 1 square, weighs 4. So 1 square weighs 4. On scale 1, the square is 4, so 1 circle weighs $16 - 4 = 12$. On scale 2, the square is 4, so 1 triangle weighs $9 - 4 = 5$.

#6



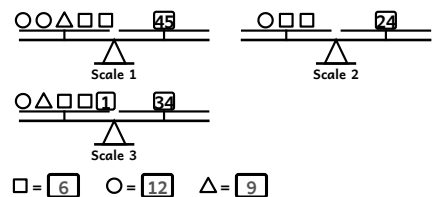
Take scale 2 away from scale 3: what is left, 2 squares, weigh 2. So 2 squares weigh 2: 1 square weighs $2 \div 2 = 1$. On scale 1, the square is 1, so 1 triangle weighs $6 - 2 = 4$. On scale 2, the square is 1, so 1 circle weighs $8 - 1 = 7$.

#7



Take scale 3 away from scale 2: what is left, 1 square, weighs 11. So 1 square weighs 11. On scale 1, the square is 11, so 2 circles weigh $34 - 11 = 23$: 1 circle weighs $23 \div 2 = 11.5$. On scale 2, the square is 11, so 1 triangle weighs $19 - 11 = 8$.

#8



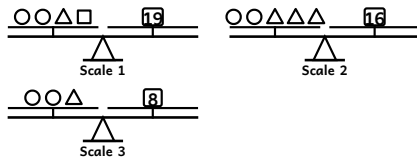
Take scale 2 away from scale 1: what is left, 1 circle + 1 triangle, weigh 21. Take scale 2 away from scale 3: what is left, 1 triangle, weighs 9. So 1 triangle weighs 9. On scale 1 take away scale 2, the triangle is 9, so 1 circle weighs $21 - 9 = 12$. On scale 1, the circle is 12, the triangle is 9, so 2 squares weigh $45 - 21 = 24$: 1 square weighs $24 \div 2 = 12$.



Answers

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

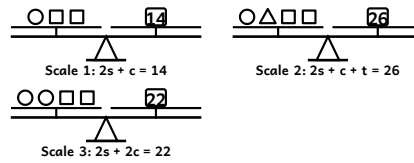
#9



$$\square = 11 \quad \circ = 2 \quad \triangle = 4$$

Take scale 3 away from scale 1: what is left, 1 square, weighs 11. So 1 square weighs 11. Take scale 3 away from scale 2: what is left, 2 triangles, weigh 8. So 2 triangles weigh 8: 1 triangle weighs $8 \div 2 = 4$. On scale 1, the triangle is 4, the square is 11, so 2 circles weigh $19 - 4 - 11 = 4$: 1 circle weighs $4 \div 2 = 2$.

#10



$$\square = 3 \quad \circ = 8 \quad \triangle = 12$$

Take scale 1 away from scale 2: what is left, 1 triangle, weighs 12. So 1 triangle weighs 12. Take scale 1 away from scale 3: what is left, 1 circle, weighs 8. So 1 circle weighs 8. On scale 1, the circle is 8, so 2 squares weigh $14 - 8 = 6$: 1 square weighs $6 \div 2 = 3$.