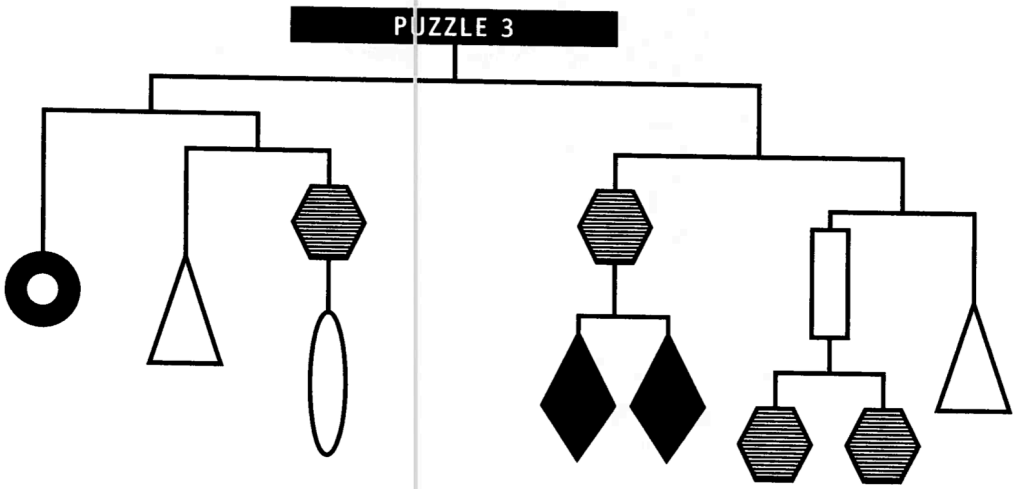
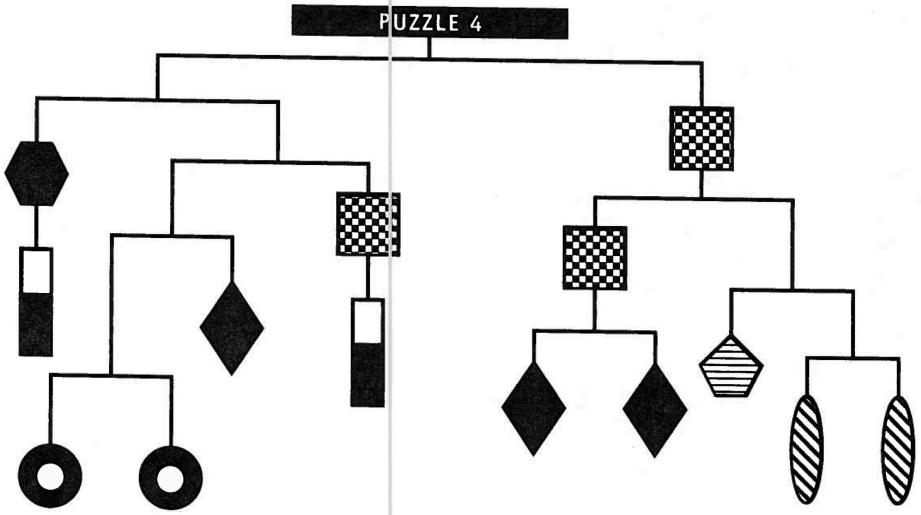
## PUZZLE 3



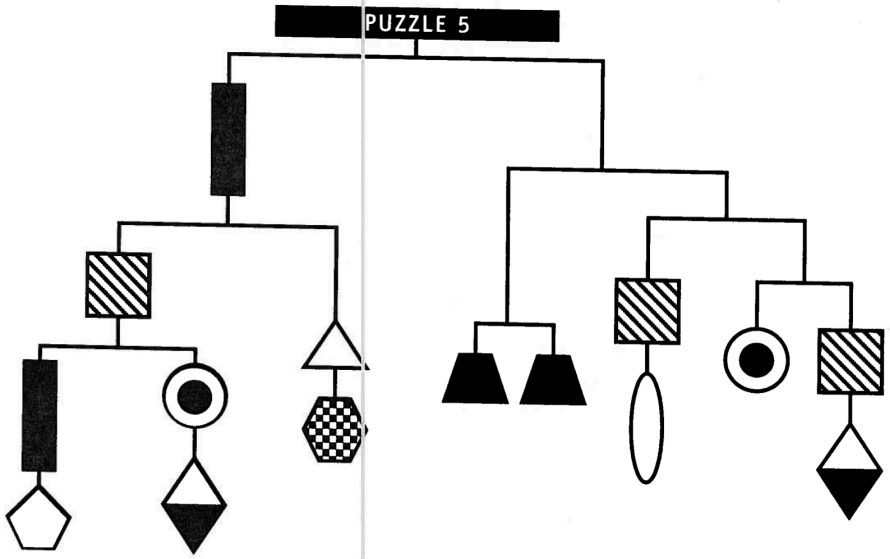
Discover the value of each of the shapes.
The total weight is 40.

## PUZZLE 4

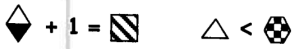


Discover the value of each of the shapes.
The total weight is 96.

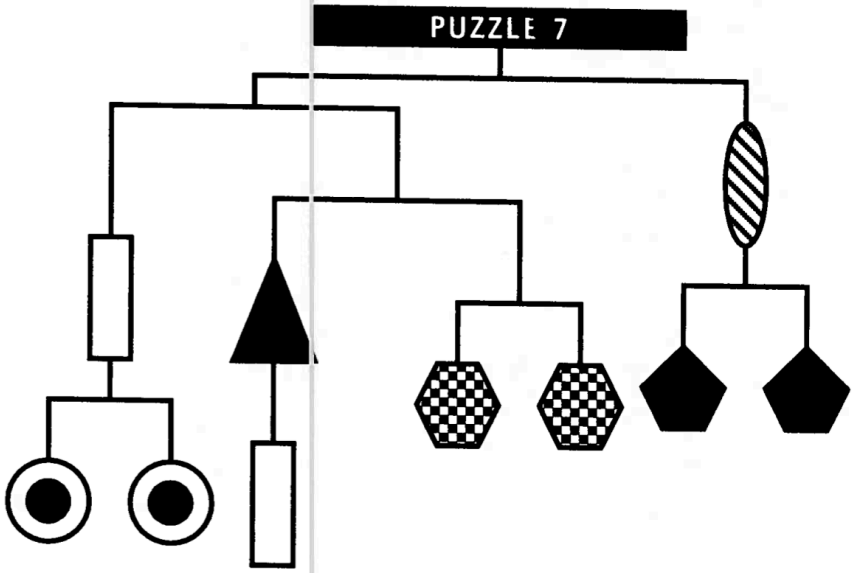
## PUZZLE 5



Discover the value of each of the shapes. The total weight is 80. Only one shape weighs more than nine. Additional clues:

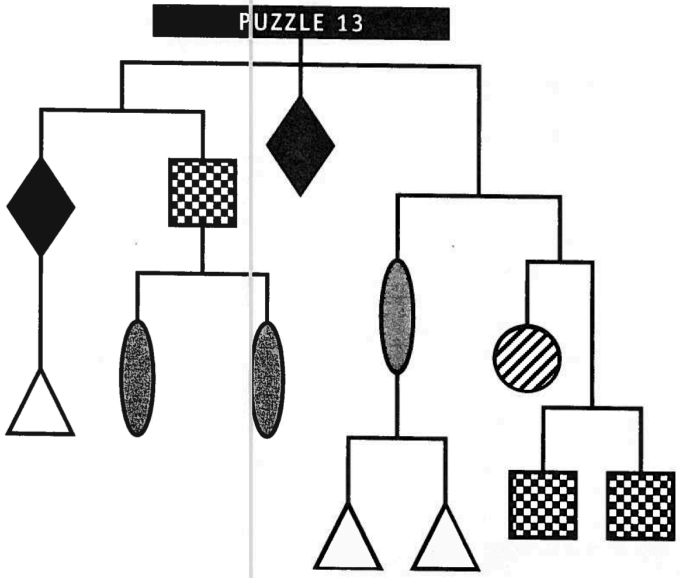


## PUZZLE 7



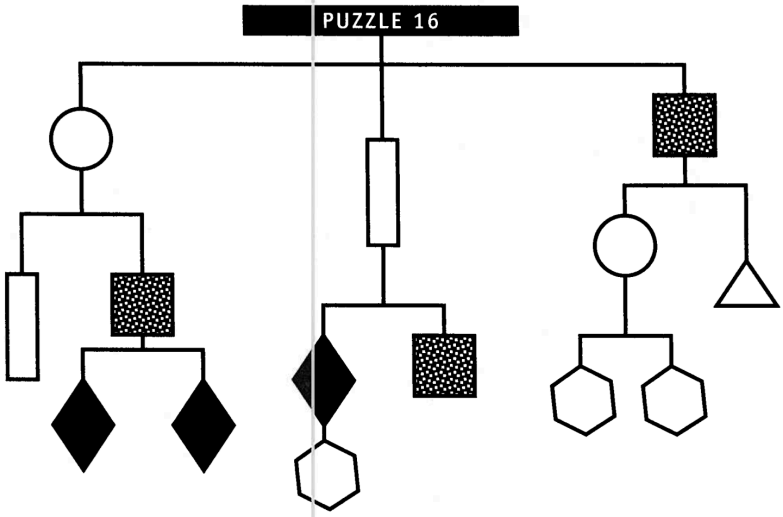
Discover the value of each of the shapes.
The total weight is 48. Clues:

## PUZZLE 13



Discover the value of each of the shapes.
The total weight is 75.

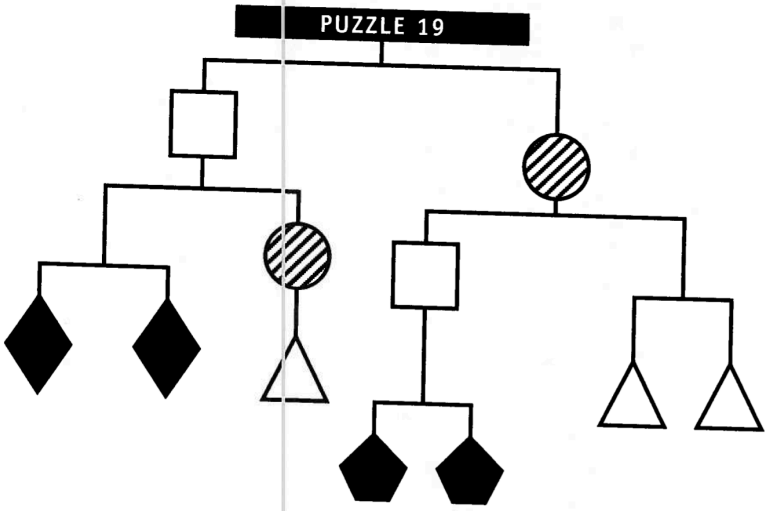
## PUZZLE 16



Discover the value of each of the shapes. The total weight is 57. Each of the three arms is equal in weight. Additional clue:

▯ **is a multiple of three.**

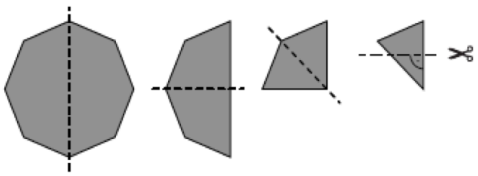
## PUZZLE 19

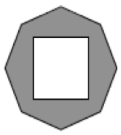


Discover the value of each of the shapes.
The total weight is 68. Clue:

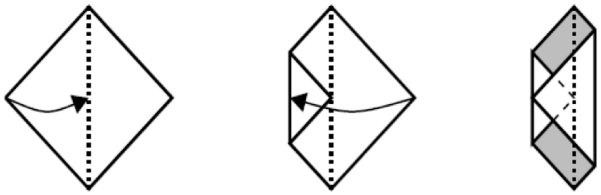
□ + ◆ = ⊘

17. A regular octagon is folded in half exactly three times until a triangle is obtained, as shown. Then the vertex is cut off at right angles, as shown in the picture. If we unfold the paper what will it look like?



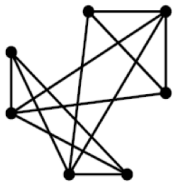
(A)  (B)  (C)  (D)  (E) 

29. A square-shaped piece of paper is folded twice as shown in the picture. The area of the original square is 64 $cm^2$. What is the total area of the shaded rectangles?



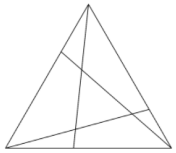
(A) 15 $cm^2$ (B) 10 $cm^2$ (C) 16 $cm^2$ (D) 24 $cm^2$ (E) 14 $cm^2$

27. There are seven cities in Wonderland. Each pair of cities is connected by one road, either visible or invisible. On the map of Wonderland, there are only twelve visible roads, as shown. Alice has magical glasses: when she looks at the map through these glasses she only sees the roads that are otherwise invisible. How many invisible roads can she see?



(A) 38 (B) 21 (C) 11 (D) 9 (E) 7

**29.** A triangle is divided into four triangles and three quadrilaterals by three straight line segments, as shown. The sum of the perimeters of the three quadrilaterals is equal to 25 cm. The sum of the perimeters of the four triangles is equal to 20 cm. The perimeter of the whole triangle is equal to 19 cm. What is the sum of the lengths of the three straight line segments?



(A) 11 (B) 12 (C) 13 (D) 15 (E) 16