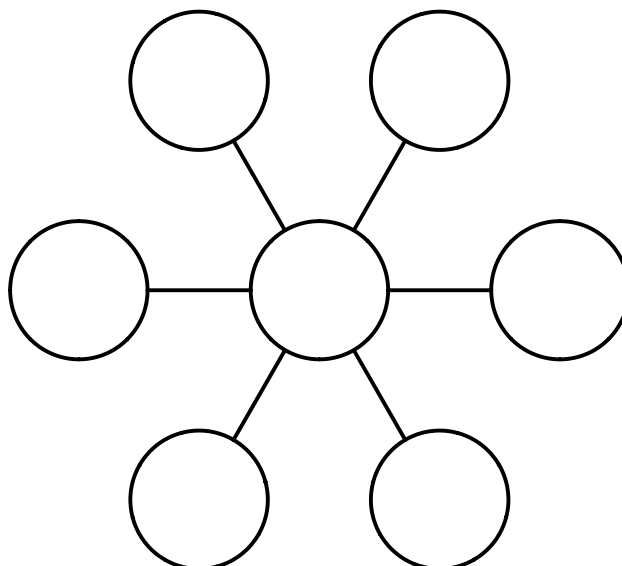# Magic Circles

Baseboard

Puzzle 1

Equipment   **Seven counters** (any size, any shape) numbered **1, 2, 3, 4, 5, 6, 7**, made from scrap paper or card

Instructions   Place the counters on the circles of the baseboard so that any three circles in a line **add up to 12**

Challenge   Re-arrange the same counters on the circles of the baseboard so that any three circles in a line **add up to 10**

Challenge   Re-arrange the same counters on the circles of the baseboard so that any three circles in a line **add up to a number other than 12 or 10**

Puzzle 2

Equipment   **Seven counters** (any size, any shape) numbered **7, 8, 9, 10, 11, 12, 13**

Instructions   Place the counters on the circles of the baseboard so that any three circles in a line add up to the same total. What is this total?

Challenges   There are 3 ways to solve this problem. Can you find them all? The totals are different in each case.

Puzzle 3

Equipment   **Seven counters** (any size, any shape) numbered **-5, 10, 13, 1, 4, -2, 7**

Instructions   Place the counters on the circles of the baseboard so that any three circles in a line add up to the same total. What is this total?
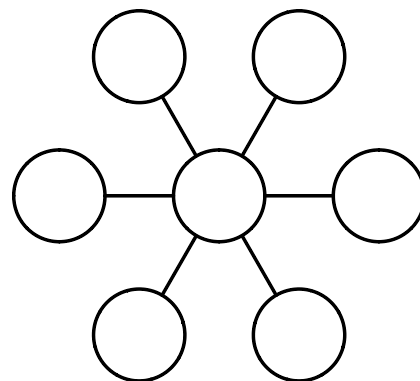
Challenges   There are 3 ways to solve this problem. Can you find them all? The totals are different

[Hints and Answers](#)

Magic Circles continued

Instructions for all puzzles on this page

Place the counters on the circles of the baseboard so that
any three circles in a line add up to the same total

Puzzle 4

Equipment **Seven counters** (any size, any shape) numbered

-4, 0, 4, 3, -2, 5, -1   What is the total?

Puzzle 5

Equipment **Seven counters** (any size, any shape) numbered **1, -6, -7, 6, -2, 7, 2**

What is the total?

Puzzle 6

Equipment **Seven counters** (any size, any shape) numbered **-1, 1, -5, 0, 7, 6, 5**

What is the total?

Puzzle 7

Equipment **Seven counters** (any size, any shape) numbered **-6, -7, -3, -1, 5, -2, -5**

What is the total?

Puzzle 8

Equipment **Seven counters** (any size, any shape) numbered **-6, -1, 1, -4, -3, 5, -2**

What is the total?

Puzzle 9

Equipment **Seven counters** (any size, any shape) numbered **40, 70, 14, 80, 44, 64, 20**

What is the total?

Puzzle 10

Equipment **Seven counters** (any size, any shape) numbered **41, 18, 48, 57, 59, 43, 82**

What is the total?

Puzzle 11

Equipment **Seven counters** (any size, any shape) numbered **8, -42, -9, 18, -15, -32, -23**

What is the total?

Puzzle 12

Equipment **Seven counters** (any size, any shape) numbered **21, -3, 97, -2, 74, 52, 43**

What is the total?

Puzzle 13

Equipment **Seven counters** (any size, any shape) numbered **2¼, 1½, ¾, 1, 1¾, 2, 1¼**

What is the total? There are 3 ways to solve this problem. Can you find them all?

The totals are different in each case.   Hints and Answers