

It's problem solving time again!

Using the maze on the right can you:

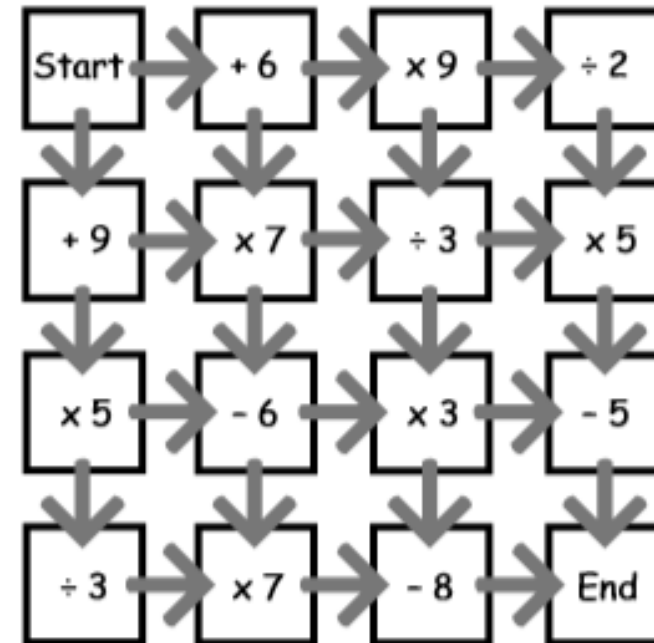
- 1) Find a route from start to end that gives a total of exactly 100
- 2) Find a route with the highest total
- 3) Find a route with the lowest total

REMEMBER – always start with zero

## Maze

Start with zero.

Find a route from 'Start' to 'End' that totals 100 exactly.



Which route has the highest total?

Which has the lowest total?

Now try some different starting numbers.

Answers for Thursday:

There are two routes that total 100 exactly:

$$+ 6 \quad \times 7 \quad - 6 \quad \times 3 \quad - 8 \quad = 100$$

$$+ 9 \quad \times 7 \quad \div 3 \quad \times 5 \quad - 5 \quad = 100$$

The route giving the highest total is:

$$+ 9 \quad \times 7 \quad - 6 \quad \times 7 \quad - 8 \quad = 391$$

The route giving the lowest total is:

$$+ 6 \quad \times 7 \quad \div 3 \quad \times 3 \quad - 8 \quad = 34$$

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Friday's challenge.

Remember multiples of 3 are numbers that you can divide by 3 exactly e.g. 12

Multiples of 5 can be divided exactly by 5 e.g. 25

Prime numbers are numbers that are divisible by 1 and the number itself e.g. 17

## Make five numbers

Take ten cards numbered 0 to 9.



Each time use all ten cards.

Arrange the cards to make:

- five numbers that are multiples of 3
- five numbers that are multiples of 7
- five prime numbers

Answers for Friday:

**For example:**

**a. 12, 39, 45, 60, 78.**

**b. 7, 42, 63, 98, 105.**

**c. 5, 23, 67, 89, 401.**

**There are other solutions.**