# AFRICAN INSTITUTE FOR MATHEMATICAL SCIENCES

SCHOOLS ENRICHMENT CENTRE (AIMSSEC)

### **AIMING HIGH**

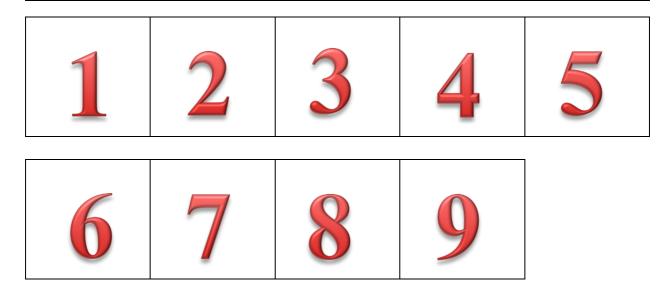
## **FIFTEEN GAME**

This is a game for two players (or a group split into two teams).

Take it in turns to choose one of the numbers 1 to 9. It is now your number and your opponent cannot choose it. Each number can be chosen only once.

To win, be the first to pick 3 numbers that add up to 15.

If all the numbers have been chosen and nobody can make 15, then the game ends in a draw.



### **HELP**

- Write down all the combinations of three of the numbers that add up to 15.
- Have you met anything like this before?
- Remember you can't use 2 numbers to make 15, you can't use 4 numbers, it must be 3 numbers.

## **NEXT**

- Is it an advantage to go first (or second?)
- Can you work out how to play this game so that nobody can beat you?
- When you write down all the different combinations of 3 numbers that sum to 15:
  - o How can you be sure that you have found all the combinations?
  - o Have you met anything like this before?
  - Which numbers appear in 2 of these combinations?
  - Which numbers appear in 3 of these combinations?
  - Which numbers appear in 4 of these combinations?
- Can you think of any other games you know like this one?
- Make up a number game of your own.

Large cards for the Fifteen Game

2 6 **CARDS FOR FIFTEEN GAME** 

GOT	AI
GAME	OIE
PET	PIG
PM	AT
MO	CARDS FOR THE PAT THE PIG GAME

