

AFRICAN INSTITUTE FOR MATHEMATICAL SCIENCES

SCHOOLS ENRICHMENT CENTRE (AIMSSEC)

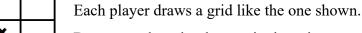
AIMING HIGH

TARGET MULTIPLICATION



PLAY FOR FUN - THINK AND WIN - PLAY AND LEARN A GAME FOR ANY NUMBER OF PLAYERS The TARGET is 1000

You will need a set of 10 cards numbered 0 to 9 or a 0-9 spinner like the one in the picture.



Draw a card randomly or spin the spinner and call out the digit. All the players must write the digit in one of the top four boxes. Once a number is written its position cannot be changed.

Repeat three more times. Then the players multiply the 3-digit number by the 1-digit number and write the answer on the bottom line.

The player (or players) with the answer closest to 1000 wins. Score 1 point for a win.

ALTERNATIVE VERSION OF THE MULTIPLICATION GAME. The players write down all 4 numbers and then at the end decide where to place them. This is a game of skill that involves mathematical thinking and not luck.

GAME FOR 2 PLAYERS Each player draws a grid like the one shown. They take turns to draw a card or spin the spinner and each player decides which of their cells to fill in. They can't change the position of the digit once it is written in. After 4 digits have been randomly chosen, each player multiplies their 3-digit number by their 1-digit number and writes the answer on the bottom line.

The players check each other's answers and agree on who has won that round. They need to understand that they must each find the difference (positive or negative) between their answer and 1000 and compare their difference with the other player's difference.

HELP

When deciding where to write the digits it's a good idea to estimate the answer by rounding the 3-digit number to the nearest hundred and choosing a 1-digit number that will get your answer as close as possible to 1000.

For example if your 3-digit number is between 150 and 250 you would want to multiply 4, 5 or 6; for 3-digit numbers between 250 and 350 you would want to multiply by 3 or 4; for 3-digit numbers 350 and 450 you would multiply by 2 or 3; and for numbers between 450 and 550 you would want to multiply by 2.

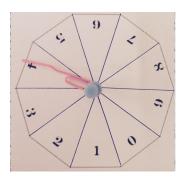
You might play these games first:

Target 100 https://aiminghigh.aimssec.ac.za/years-4-5-target-100/ and Target 1000 https://aiminghigh.aimssec.ac.za/years-4-7-target-1000/

NEXT

You might organise a knockout competition where everyone in the class plays another learner in Round 1. Then the losers drop out and the winners of Round 1 compete in pairs in Round 2, the winners of Round 2 compete in Round 3 and so on until the Final is played between the last 2 players.

MAKE A 0 – 9 SPINNER

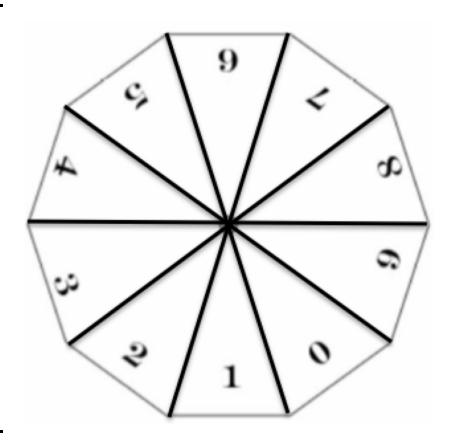


To make your own spinner you will need a paper clip, a pin and some card.

Prick through the template to mark the 10 outer vertices and the centre on the card. Then draw the spinner as in the diagram and cut it out.

Open up the paper clip and pin the paper clip and the template down on a flat surface so that the paper clip spins easily.

If you want to make a spinner without using a pin you can hold down the template and the paper clip with the point of a pencil.



Alternatively make 10 cards so that you can draw one randomly from a box.

