

## M1 Maths – Fun and Games

# Bingo

### Aim

To develop strategies, fluency and confidence with mental arithmetic.

### Procedure

Get students to draw a  $5 \times 5$  bingo square, then get them to put 25 different numbers between 10 and 59 inclusive in the 25 cells.

Get the students to pick their numbers in numerical order, scattering them around the square if they wish. This will be quicker than picking numbers all over the place and that way, they won't put the same number in two different cells. Allow only 2 minutes for students to pick their numbers. Check that all have their numbers written down before you start or some may write down the numbers as you call them. If any student hasn't got them all down in the two minutes, put crosses in their empty cells. These cannot be used to make lines.

Also, don't let them use single-digit numbers, because it is easy to write in the second digits as the numbers are called. For example a student writes 7, then when 37 is called, they add the 3 and circle it.

An alternative to this procedure of course, is to pre-make squares and hand them out, but that is a lot more work for the teacher and means that the game cannot be played spontaneously, without prior planning.

While the students are preparing their squares, take a piece of paper and write the numbers from 10 to 59 on it. You will be able to use this to circle the numbers as you call them. There are some ready-made sets at the end of this document which you can use if you plan ahead.

Once the squares are all ready, then call the numbers. For some of them, you might call the number directly, e.g. '37'. For others you should give them an expression which evaluates to the number, e.g. ' $50 - 13$ ' or ' $6^2 + 1$ '. Vary the complexity of the expressions, and make them suitable to the level of the students you are working with. Give them an amount of time commensurate with the difficulty of the expression. Ideally, all or nearly all the students should be able to work out the number, though it should involve significant mental mathematical work.

Each time you use a number, circle it on your list so you don't call it again.

When the students work out the number, they search their square to see if they have it. If they have, they circle it. If they haven't, they wait for the next one.

You might credit up to five winners:

- the first person to get a horizontal line of 5
- the first person to get a vertical line of 5
- the first person to get a diagonal line of 5
- the first person to get the 4 corner squares
- the first person to get all 25 squares.

When someone thinks they've won, they call out 'Bingo'. Then they read out their winning numbers so you can check that they are circled on your list. If they call one which is not, they un-circle that number and continue to play. Stand behind the student as they call out the numbers to encourage them to call out the numbers they actually have. While you do this, other students might like to check that they don't have any of the numbers called out un-circled. If they do, they may circle them.

You might offer small prizes to winners or record their names on the board. Or you might just congratulate them.

## **Tips**

Students should not talk or share answers during the game. Allow the game to be fun, but be firm on sharing of answers and talking while you read out the numbers/expressions. If necessary, for offences, you can impose a penalty of crossing out one of the student's numbers, so they cannot use that number to win.

Do not repeat the numbers or expressions you call out. This encourages students to pay close attention and not to talk. If students miss one, they just wait for the next. They can still win.

10 11 12 13 14 15 16 17 18 19  
20 21 22 23 24 25 26 27 28 29  
30 31 32 33 34 35 36 37 38 39  
40 41 42 43 44 45 46 47 48 49  
50 51 52 53 54 55 56 57 58 59

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30 31 32 33 34 35 36 37 38 39  
40 41 42 43 44 45 46 47 48 49  
50 51 52 53 54 55 56 57 58 59