$1000 \bigcirc 00$$10 \bigcirc 0 \bigcirc 0$000000$0 \bigcirc 0 \bigcirc 000$000000$10 \bigcirc 000$$0 \bigcirc 0 \bigcirc 000$$\bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc$00000000000000000000$0 \bigcirc \bigcirc \bigcirc 0000$0000000000$000 \bigcirc 00000$0000000000000000000000000000000000000000

## Random arrangement:

## Use a spreadsheet

Column A has numbers 1 to 100 in A1 to A100
Column B: put =rand() in B1 and fill down
Select A1:B100 and sort on column B
Copy first 48 rows somewhere else like D1:48
Those are the random positions of the 48.
In a drawing (or presentation) program:
Make a grid of 100 circles of one colour
Imagine these numbered 1 to 100 across then down so the first circle on each row is $1,11,21,31$...
Change the colours of the circles corresponding to the random 48 numbers to a different colour

Stand back and try to guess which colour has most circles just by looking!

