

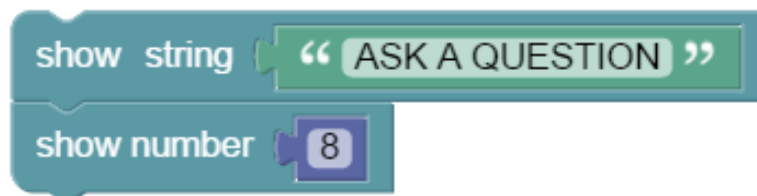
# magic 8 activity

Welcome! This tutorial will help you create a magic 8 ball on the BBC micro:bit. Let's get started!

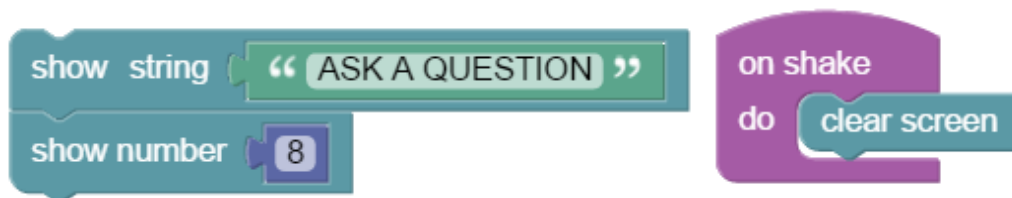
Show a string to instruct the user how to play Magic 8! The magic 8 ball can only answer true or false questions.



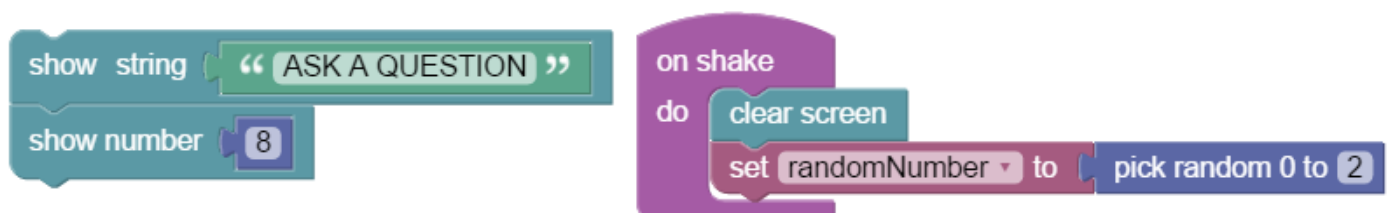
Display the number 8.



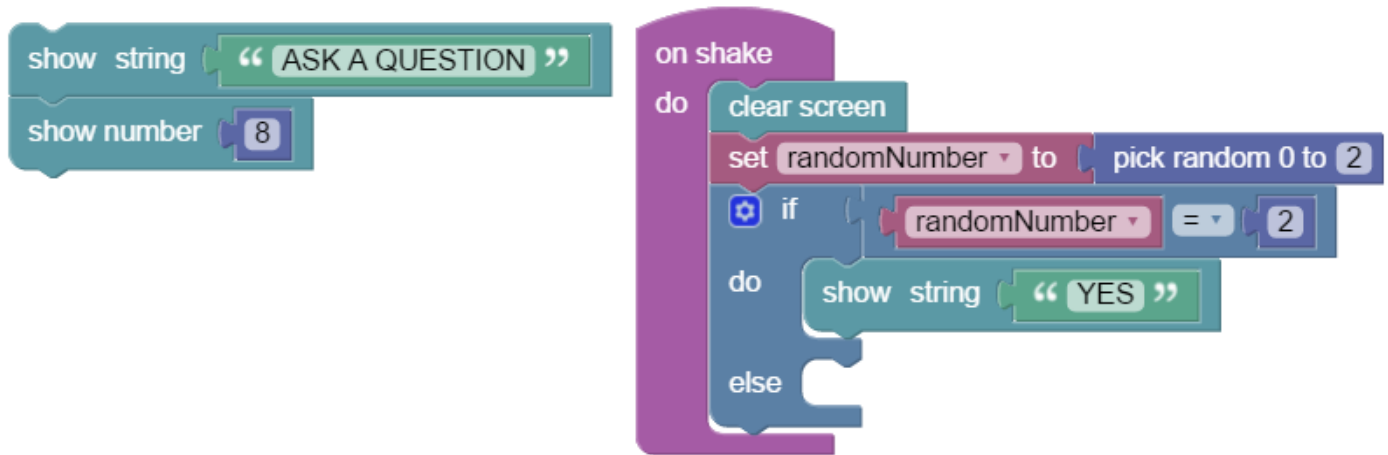
Create a condition for when the BBC micro:bit is shaken. Then use the block `clear screen` to clear the 8 from the display.



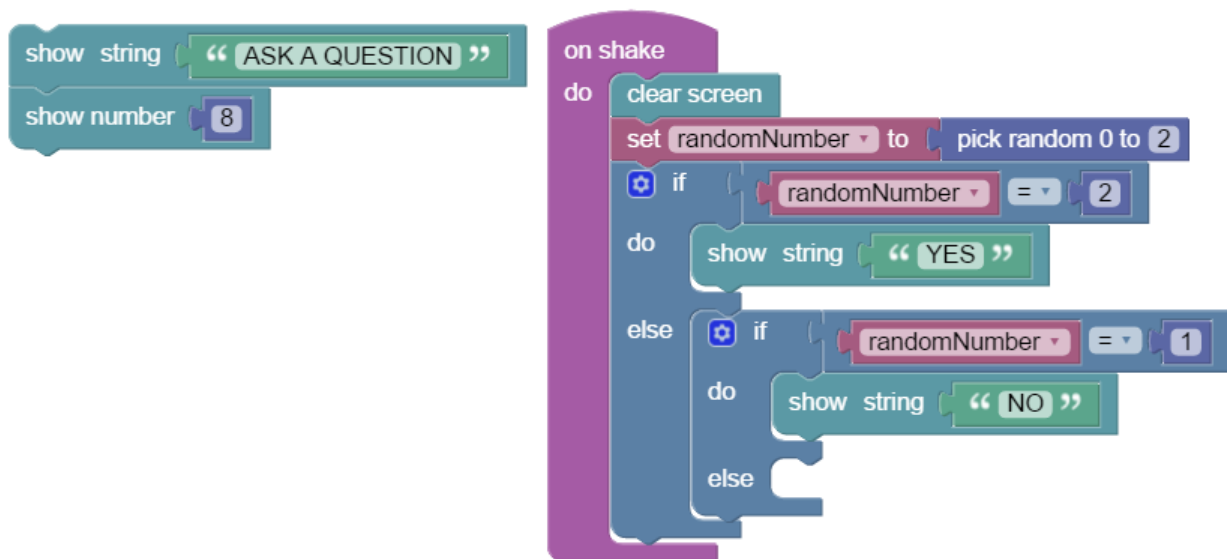
Create a variable of type number called **randomNumber**. Set **randomNumber** to a random number with a limit of 2. Remember the random function in the math library, picks a random number from 0 to the limit, but not including the limit unless it is 0.



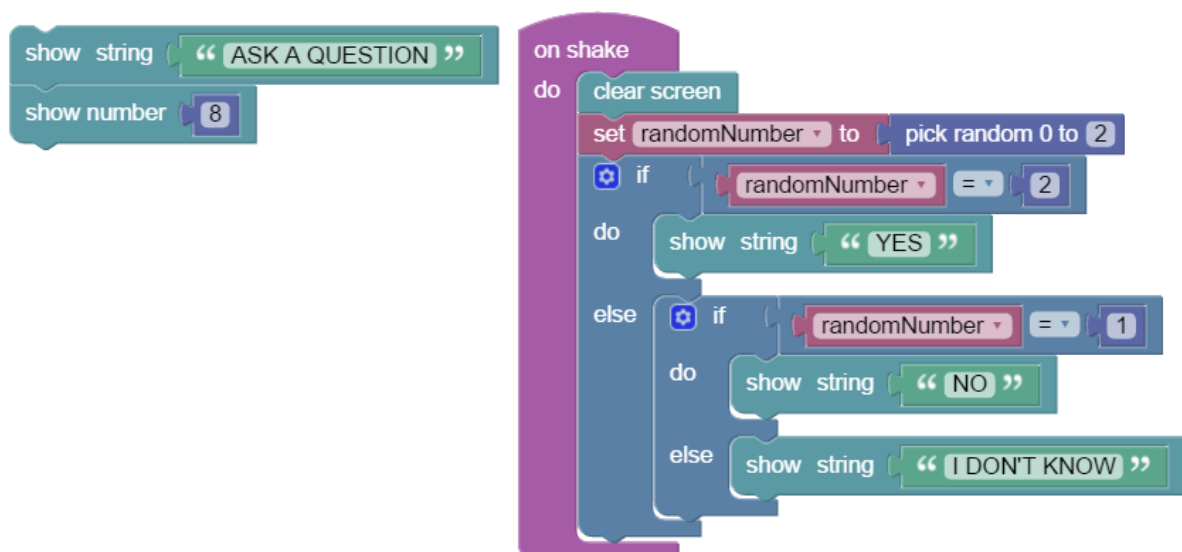
Create an if statement for the condition `if randomNumber = 2`. If **randomNumber** is 2, display the string 'Yes'



Create an if statement for the condition `if randomNumber = 1`. If `randomNumber` is 1, display the string 'No'



If `randomNumber` is not 2 or 1, it must be 0. This is the else condition. If `randomNumber` is 0, display the string 'I don't know'



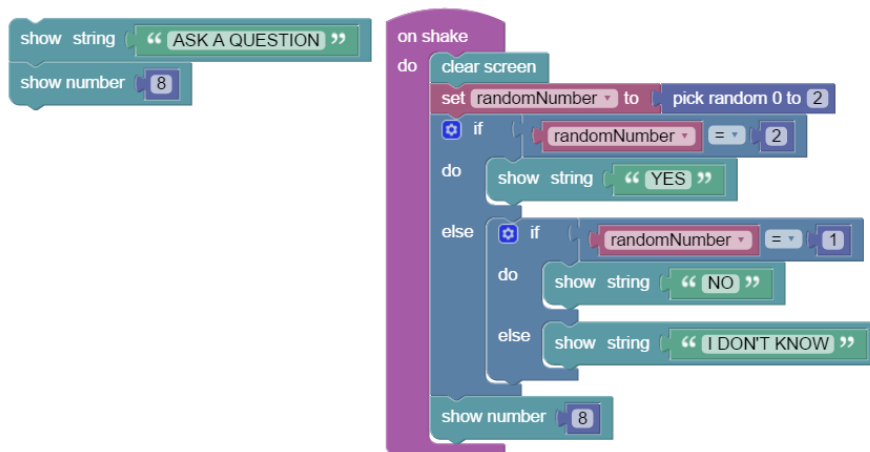
Display the number 8 so users know they can ask the magic 8 ball another

# magic 8 challenges

## Before we get started

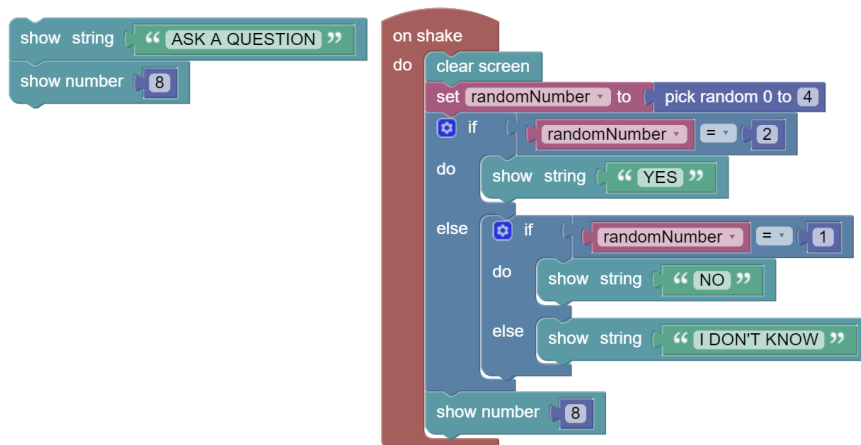
Complete the following **guided tutorial**

(<https://www.microbit.co.uk/blocks/lessons/magic-8/activity>), and your code should look like this:



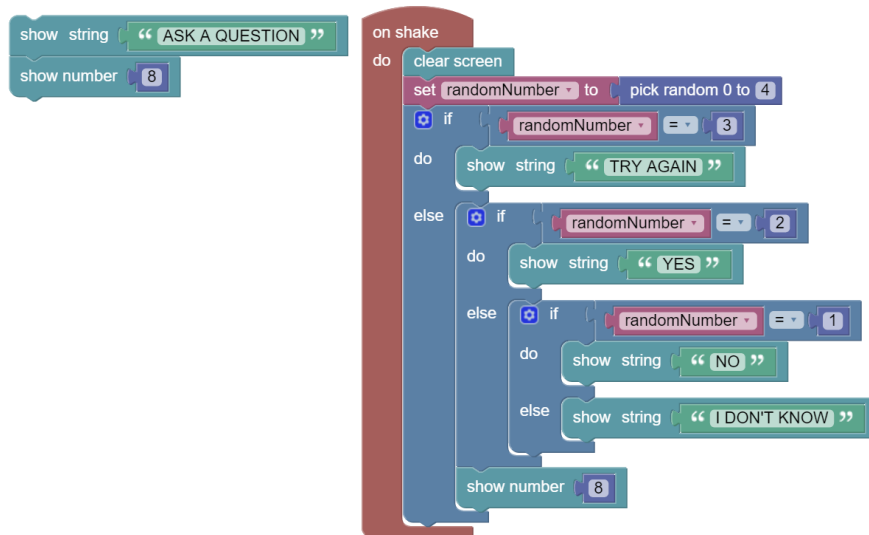
## Challenge 1

Now let's increase the number of responses the magic 8 ball can give. How about 5 responses instead? Let's change the limit of `pick random` to 4.



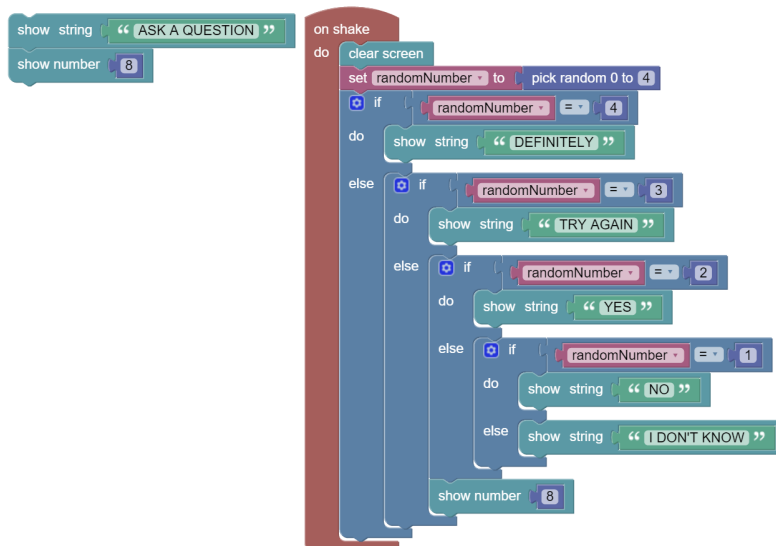
## Challenge 2

Now have the magic 8 ball respond "Try again" if `randomNumber` is 3.



### Challenge 3

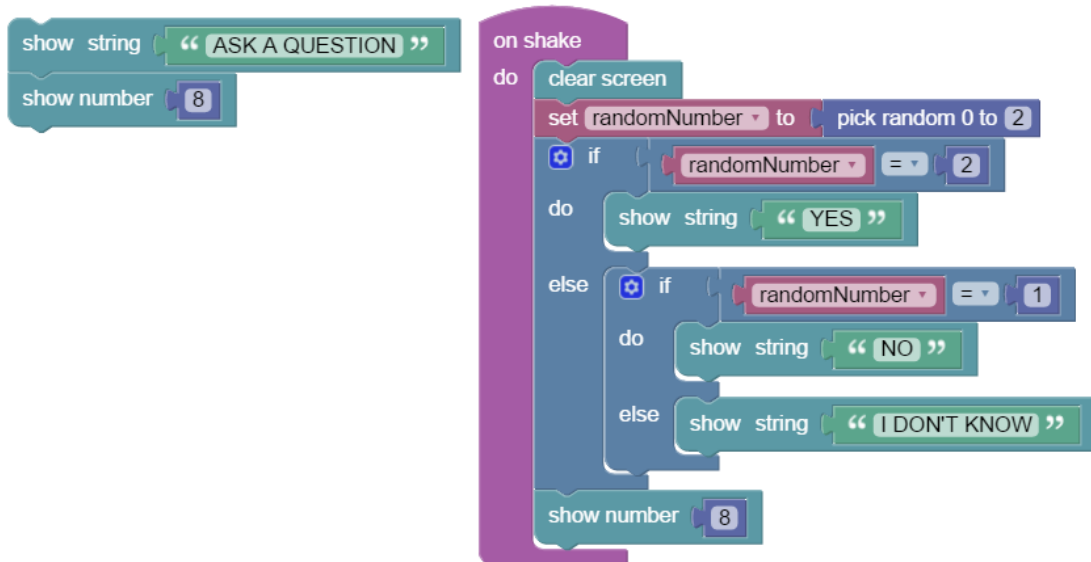
Now what about if **randomNumber** is 4? Let's have the magic 8 ball respond "Definitely!".



### Challenge 4

Add 3 more responses so your magic 8 ball has 8 possible responses. Be creative!

question!



Excellent, you're ready to continue with the **challenges** (<https://www.microbit.co.uk/blocks/lessons/magic-8/challenges>)!