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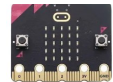
on button A pressed
  set num1 to pick random 1 to 12
  show number num1
  pause (ms) 1000
  show icon 4x4 grid icon
  set num2 to pick random 1 to 12
  show number num2
  pause (ms) 1000
  show leds
  [4x4 grid of LEDs with top two rows lit]

on button B pressed
  show number num1 x num2
  
```

1, PREDICT
 Look at this code
 Working with your partner
 Predict what you think it will do
 when someone presses button A
 and then button B

Name both variables (*HINT red*)

Variables
PRIMM



I predict that when the code is run it will

(Do not write out code in your prediction)

2, RUN

Now run the code on your Micro:bit. Did you predict what would happen?

3, INVESTIGATE (*You can run or read the code to help you answer the questions*)

A, What line of code picks a random number and then assigns it to the variable **num1**?

B, What line of code shows what is assigned to the variable **num1**?

C, What line of code multiplies both variables together and shows the result?

D, What is the largest times table this programme will work out?

NOW MARK YOUR WORK ON THIS PAGE

4, **MODIFY** (Make small changes to the code and write down what they are)

A, Change the programme so that it will only test up to 12x6 rather than 12x12. What did you change?

B, Change the programme so that it adds pairs of single digit (0-9) numbers such as 6+4 or 9+1. What **things** did you need to change?

C, Change the programmes so that it takes away a single digit number from a number between 10 and 99. What **things** did you need to change?

5. **PLAN AND MAKE**

Choose one or more of these ideas to plan and make.

A, Change the programme so that button A inputs three random single digit numbers (0-9) and button B adds all three numbers together and shows the answer on the screen



Operator blocks can be joined

B, Plan and write a programme to round random decimal fractions such as 2.4 or 4.6 to the closest whole number

C, Plan and code your own maths based programme that uses at least one variable

My idea

My algorithm

For assessment by the teacher

Not completed any
make projects

Completed A only

Completed B or C
successfully