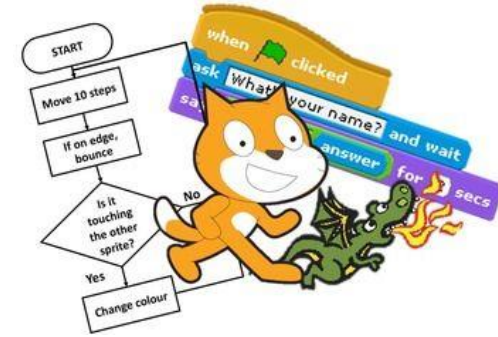
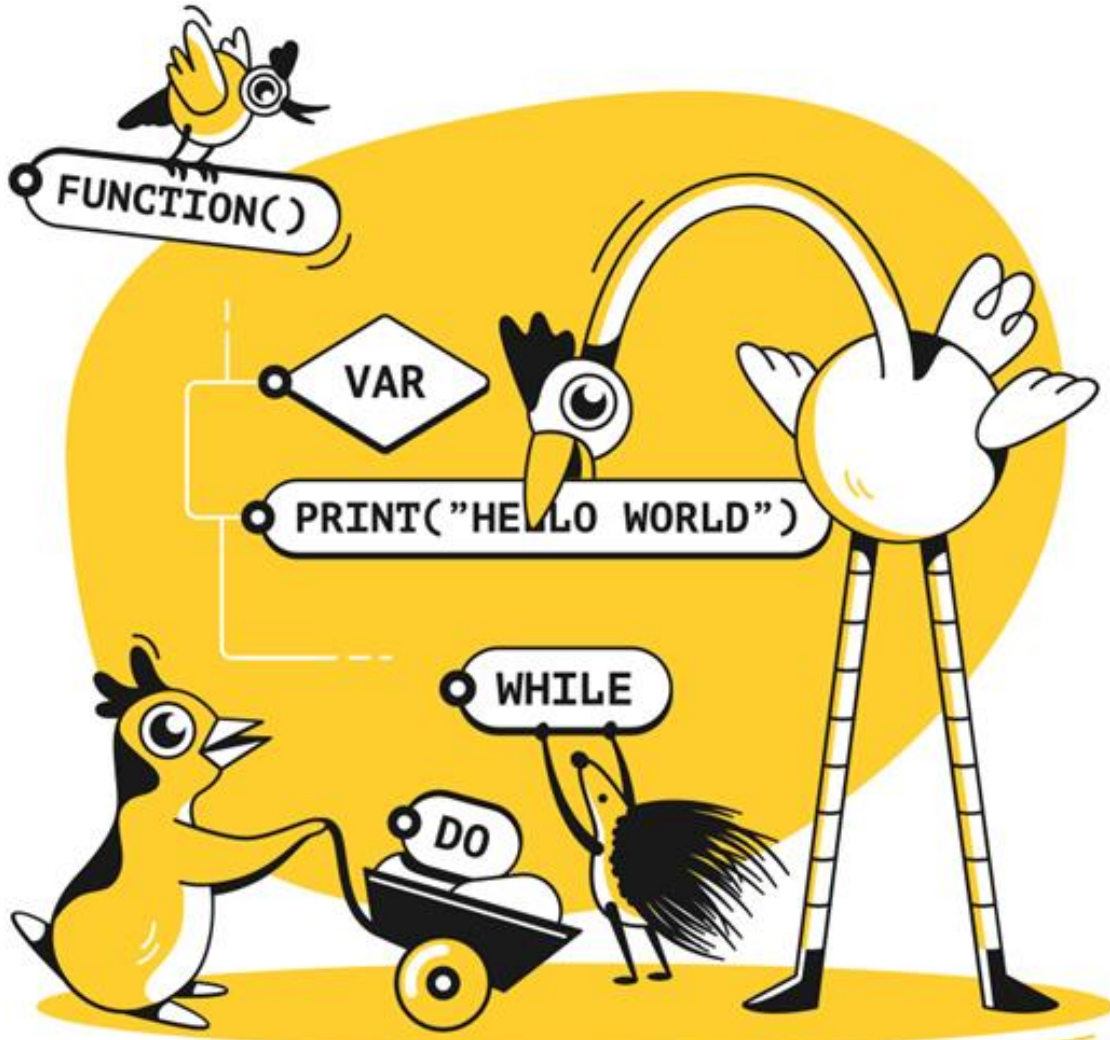




Musaeus
College
Colombo



Quiz



Programming

Grade 9

ICT

27th November 2020



Musaeus College
Colombo

Answers

Activity 3.2



Consider that, a school has four houses namely Metta, Karuna, Muditha and Upeksha. A flowchart to assign students to their houses is given below. Houses are assigned based on the remainder after dividing the admission number by 4.

Remainder	House
0	Metta
1	Karuna
2	Muditha
3	Upeksha

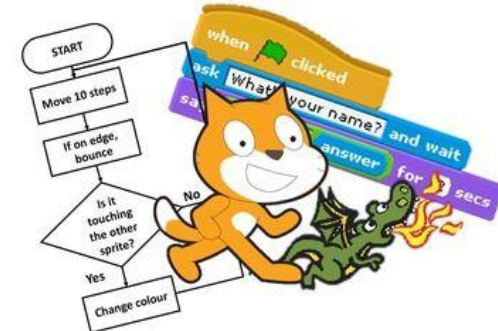
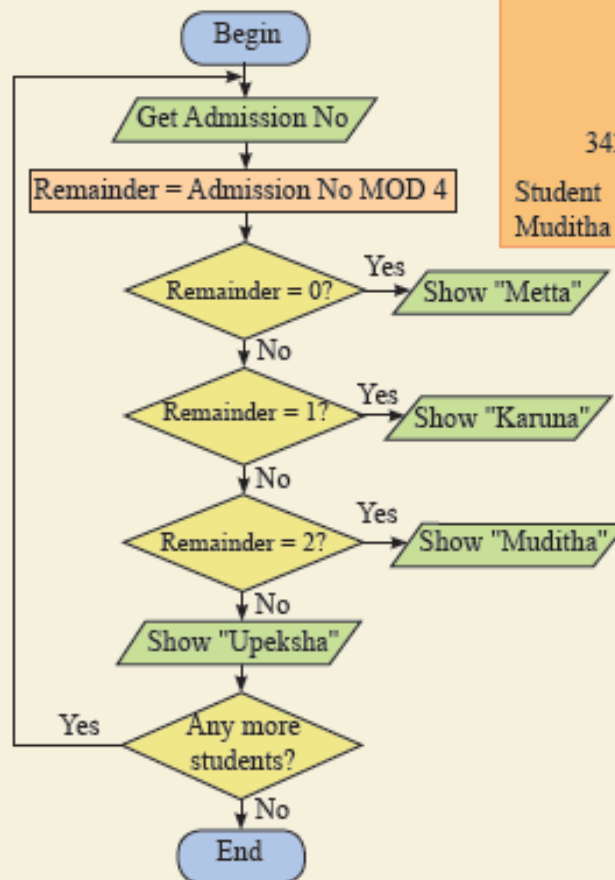
Here, the remainder is obtained by dividing the Admission No. by 4.

e.g. - Admission No. = 342

$$\begin{array}{r} 85 \\ 4 \overline{) 342} \\ \underline{32} \\ 22 \\ \underline{20} \\ 2 \end{array}$$

$$342 \text{ MOD } 4 = 2$$

Student is assigned to Muditha House.





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Answer the following questions.

1. A number that cannot exist as a remainder

- 1) 0 2) 2 3) 3 4) 4

2. A suitable remainder for a student assigned to Upeksha House is:

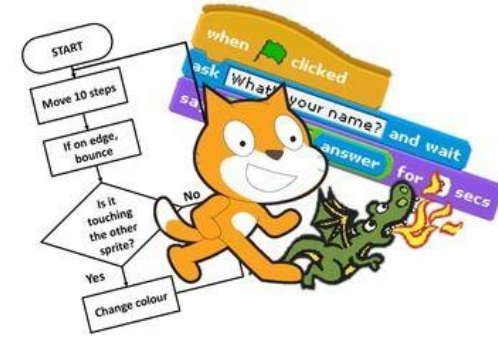
- 1) 3 2) 2 3) 1 4) 0

3. How many conditions are there in this flowchart?

- 1) 1 2) 2 3) 3 4) 4

The Scratch program to divide all students in the school into houses is shown below. Connect with arrows the instructions relevant for blank spaces.

```
when green flag clicked
ask How many students? and wait
set Number of students to answer
repeat (Number of students)
ask What is the admission number? and wait
set Reminder to answer mod 4
if (Reminder = 0) then
say Muditta House for 2 secs
else
if (Reminder = 1) then
say Metta House for 2 secs
else
if (Reminder = 2) then
say Karuna House for 2 secs
else
say Upeksha House for 2 secs
```





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Activity 3.4



1. Develop a programme with an array to enter 5 subjects learnt in Grade 9.
2. Construct a suitable program based on an array to output seven days of the week. Name the Array as "day".
3. Find answers based on the array called "color" shown below.

```
when green flag clicked
  delete all of Color
  repeat 7
    ask Enter the color and wait
    add answer to Color
```

4. How many times the above programme is repeated when it is executed?
5. How many colors can be assigned to the array "color"?
6. Select the suitable statements and match them with the instructions given below.

a) To delete all the items in the array.

```
add answer to Color
```

b) Number of items in the array

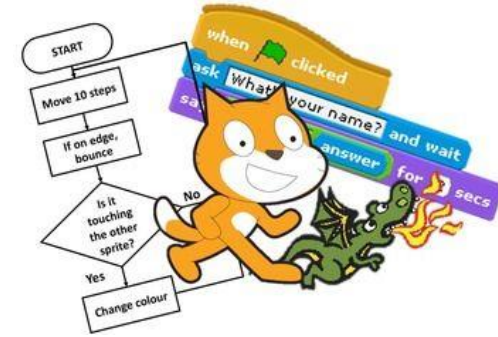
```
delete all of Color
```

c) The first item in the array

```
length of Animal
```

d) Entering items into the array.

```
item 1 of Animal
```





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Activity 3.4



1. Develop a programme with an array to enter 5 subjects learnt in Grade 9.
2. Construct a suitable program based on an array to output seven days of the week. Name the Array as "day".
3. Find answers based on the array called "color" shown below.

```
when green flag clicked
  delete all of Color
  repeat 7
    ask Enter the color and wait
    add answer to Color
```

4. How many times the above programme is repeated when it is executed? **7**
5. How many colors can be assigned to the array "color"? **7**
6. Select the suitable statements and match them with the instructions given below.

a) To delete all the items in the array.

b) Number of items in the array

c) The first item in the array

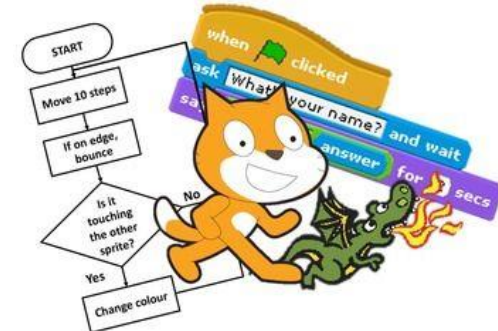
d) Entering items into the array.

```
add answer to Color
```

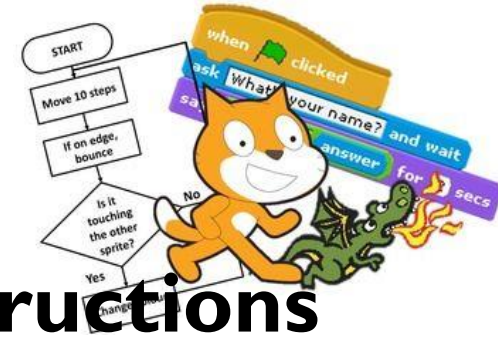
```
delete all of Color
```

```
length of Animal
```

```
item 1 of Animal
```



Quiz time



1. Programming languages give computer instructions

- A. True
- B. False

2. A completed program in scratch.




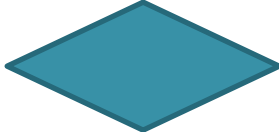
- A. Scratch
- B. volume
- C. project

3. _____ is the art of writing instructions to tell a computer what to do.

- A. Programming
- B. Debugging
- C. Variable



4. Which symbols are used to start and stop in a flowchart?

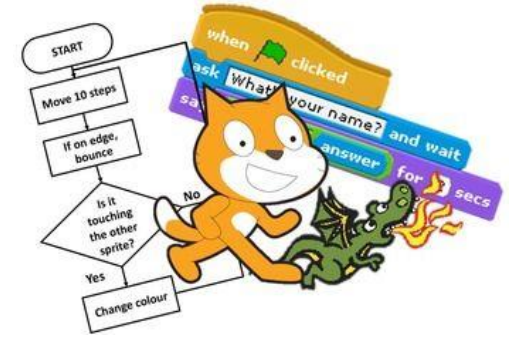
- A. . 
- B. . 
- C. . 
- D. . 

5. What is Scratch?

- A. a programming language/tool
- B. a code
- C. an animation
- D. a computer

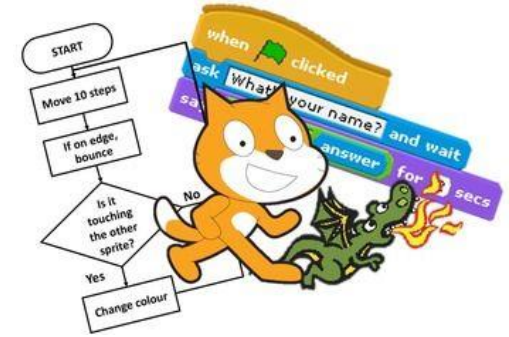
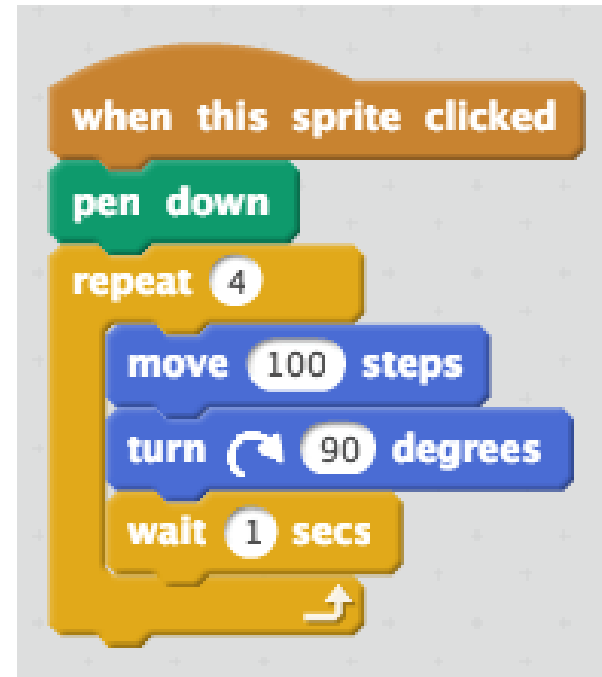
6. You can keep score in Scratch by creating a

- A. sprite
- B. variable
- C. loop
- D. function



7. This script would draw a

- A. star
- B. square
- C. pentagon
- D. Hexagon

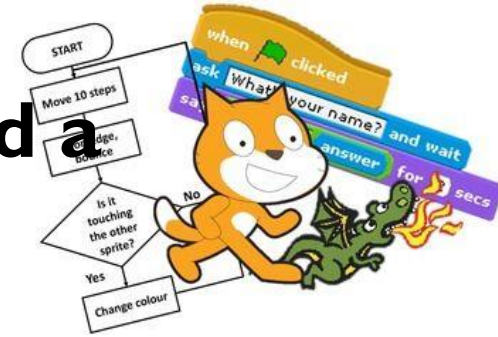
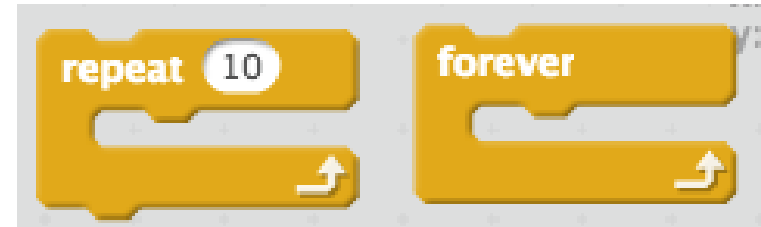


8. Performing an action depending on **IF** a criteria is met is called a

- A. sequence
- B. statement
- C. loop
- D. Condition

9. Repeating a statement more than once is called a

- A. loop
- B. sequence
- C. repetition
- D. Event



10. To send a message between sprites or from the sprite to the stage, you need to

- A. sequence
- B. send
- C. transmit
- D. Broadcast

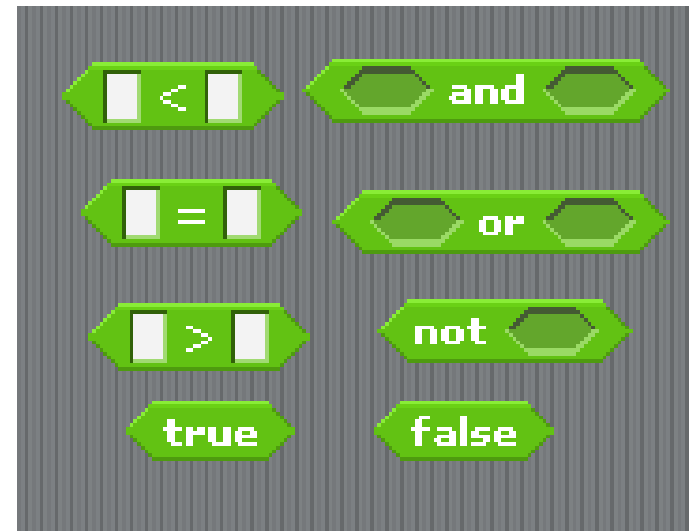
11. How many times would this code need to repeat to make a full circle?

- A. 90
- B. 180
- C. 360
- D. 720



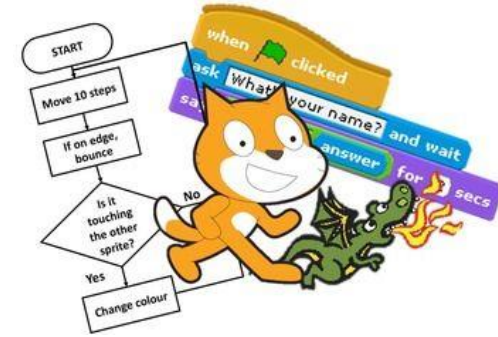
12. The green blocks that allow comparisons such as $>$, $<$, $=$, $>=$, $<=$ are called..?

- A. logics
- B. operators
- C. formulas
- D. expressions



13. How do you create a loop in scratch?

- A. use a repeat block
- B. snap a block
- C. use a variable
- D. use a condition block



14. What will this script do?

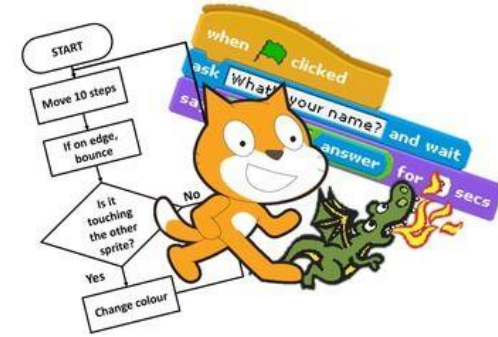
- A. draw random colors
- B. draw random shapes
- C. draw random colored shapes in random places
- D. draw random numbers



```
when green flag clicked
clear
forever loop
  pen down
  go to x: pick random -240 to 240 y: pick random 180 to -180
  change pen color by pick random 1 to 100
```


15. An algorithm is..

- A. ..A set of instructions
- B. ...A motion block
- C. ...A character
- D. ...A loop statement



16. What do you call the list of commands in Scratch?

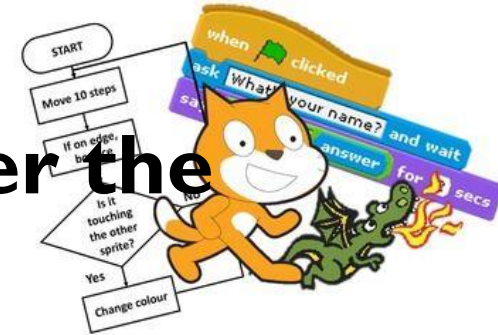
- A. Sprite
- B. Script
- C. Scratch
- D. Help

17. Blocks that allows you to execute one oftter the other times.

- A. repeating blocks
- B. if
- C. condition
- D. sequence

18. What is the final value of b?

- A. 0
- B. 9
- C. 10
- D. 11



What is the final value of b?



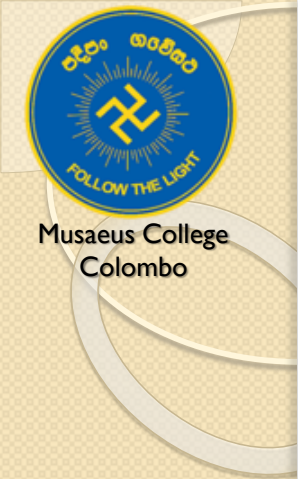
19. What will happen when the green flag is clicked?

- A. Make a character spin
- B. Make the ball bounce
- C. Start the game
- D. Make the Sprite spin



20. Performing an action depending on IF a criteria is met is called a

- A. sequence
- B. statement
- C. loop
- D. condition



Thank you

Have a nice day.....

Prepared by Kinkini Kumarage

