

What is the function of an operator? Give an example of how you would use an operator in your program?

Operators process values to make the program output. In scratch operators are green in colour. For example: $(19) + (4)$ "+" is an operation which will add these two values.

19. Explain what is the difference between join block and say block?

Join block lets you join two outputs together. join (apple) (bananas). Say block is used if we want our sprite to say something.

20. What is the purpose of relational operators? How are they different from arithmetic operators?

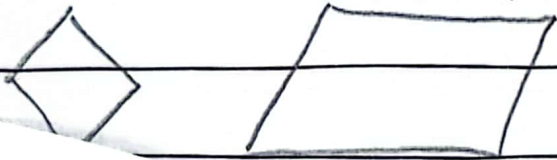
Relational operators are used to compare two values. Common relational operators are $<$, $>$ and $=$. Relational operators have pointed ends. Arithmetic operators are used to perform mathematical operations.

21. Why is a flowchart useful for a programmer? Explain.

It is useful for programmers because it helps them to draw a diagram to show a program plan.

22. What shape of box is used to show a logical test? What shape of box is used to show output?

The diamond box is used to show a logical test, and the parallelogram shows the output.



14.1.2023

Q5: Define the following terms

1. Green Flag:

Starts the program ✓

2. Red Sign:

Stops the program ✓

3. Costumes:

The differenc looks for a sprite.

4. Script:

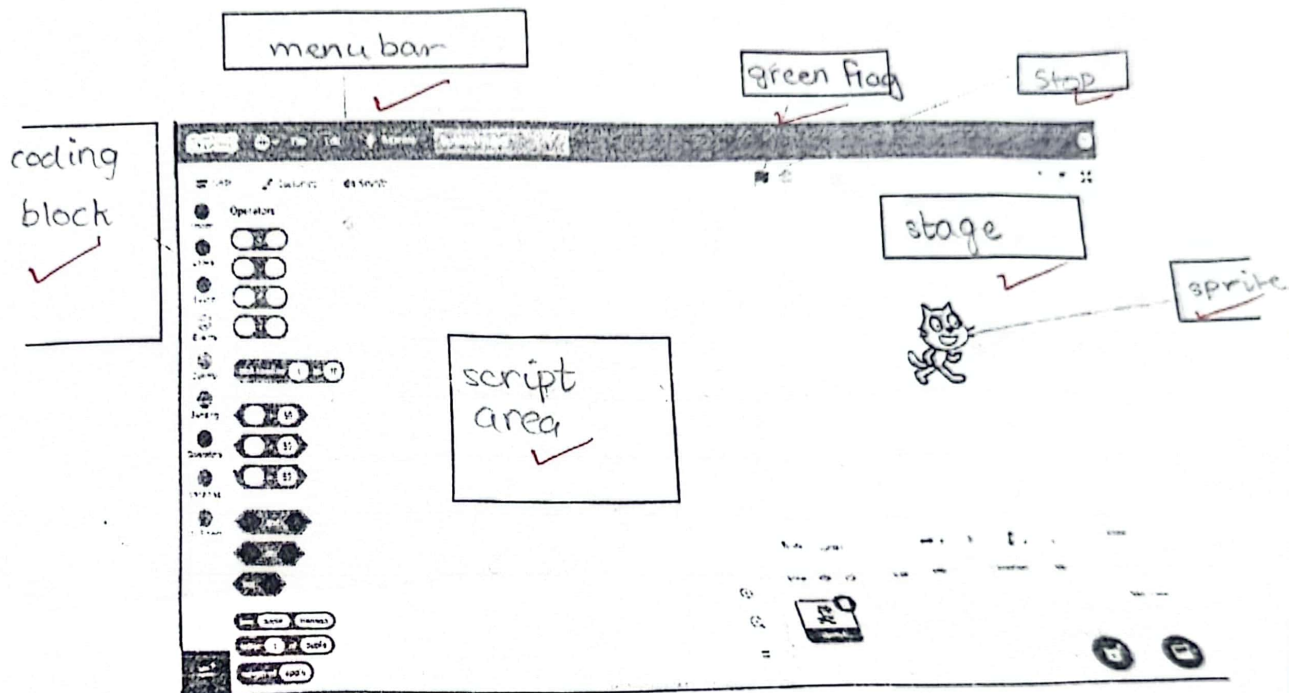
Code of your program. ✓

Grade IV Worksheet

Chapter: 3

Name: Dia Naman Date: 11-3-2024 Section: 4 Mercury

Q1: Label the scratch interface



Q2: Circle the correct option




A: What does this block tell?

1. Move 90 steps 2. Turn left 90 degrees **3. Turn right 90 degrees**





B: The background where an object move is called _____.

1. Script **2. Stage** 3. Starting event

C:  is in control block block.

1. Control block 2. Motion block 3. Sensing block.

Q3: Write the names of these arithmetic operators

	<u>addition</u>
	<u>subtraction</u>
	<u>multiplication</u>
	<u>division</u>

Q4: Write the three types of relational operators and their meanings in scratch.

Relational Operator	Meaning
>	<u>greater</u> Bigger than
<	Less than ✓
=	<u>equals to</u> ✓

Q5: Define the following terms

1. Green Flag:
Starts the program ✓
2. Red Sign:
Stops the program ✓
3. Costumes:
The different looks for a sprite.
4. Script:
Code of your program. ✓

Unit 4: Programming

Date: 11-3-24

Function of commands!

Match the commands in Column A with their corresponding function in Column B.

Column A	Column B
6 create clone of myself	Turn the face of the sprite towards the mouse pointer 1
5 play sound Laser1 until done	Move back when touching edge 2
7 go to random position	Logical test to see if the sprite is touching mouse pointer 3
3 touching mouse-pointer	Increase the value of the variable by 1 4
4 change crash points by 1	Give a sound output 5
1 point towards mouse-pointer	Create an exact copy of the sprite 6
2 if on edge, bounce	Appear at a new location everytime the command is executed 7

Task 2. Answer the following questions.

23. What is the program requirement of the rocketship program? Write it in your own words.

The user will control the rocketship. The rocketship will dodge stars and ^{planets} if it hits anything it will make a warning sound.

24. Which sprites does this program have? Write down what each sprite does.

The program has 3 sprites rocketship, planet2 and stars. The spaceship will dodge stars and planet. The star will move freely around the stage. The planet2 will move freely around the stage.

25. Why is it necessary to set the size and position of the sprites at the start of the program? Explain.

Stars and planet are obstacles so their size should be smaller than rocketship. Rocketship have a starting position as it have to dodge the obstacles.

26. What are the outputs of this program? and crashpoint

The warning sound are the outputs of the program.

SS
26
13