**ALGORITHM WITH SELECTION**

1. Look at the following **If… Then** statements. **[5]**
2. If I am hungry, then I will eat.
3. If a polygon has 3 sides, then it is a triangle.
4. If I complete my homework, then I can play video games.
5. If it is raining, then I will stay indoors.
6. If it is my birthday, then I will get cake.

Identify the **condition** and the **conclusion** and write it below in the given boxes.

|  |  |  |
| --- | --- | --- |
|  | **CONDITION** | **CONCLUSION** |
|  | If I am hungry, | I will eat. |
|  | If a polygon has 3 sides | it is a triangle. |
|  | If I complete my homework | I can play video games. |
|  | If it is raining | I will stay indoors. |
|  | If it is my birthday | I will get cake. |

1. Complete the given algorithm and answer the given questions. **[5]**
2. **Instructions for first algorithm: [1]**

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| **Algorithm for butterfly** |
| **Step** | **Instruction** |
| 1 | Start when \_\_\_green flag is clicked\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| 2 | Glide for 1 second to \_\_\_\_towards\_bat\_\_ |
| 3 | Stop program  |

When the green flag is clicked, the **butterfly** glides for 1 seconds towards the bat.

1. **Instructions for Second algorithm: [1]**

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| **Algorithm for bat** |
| **Step** | **Instruction** |
| 1 | Start when green flag is clicked |
| 2 | Wait for 1 second |
| 3 | **3.1** if the \_\_\_\_\_bat\_\_\_\_\_\_\_\_\_\_ is touching the \_\_\_\_\_butterfly\_\_\_\_\_. Then **3.1.1** Go to a \_\_\_\_random position\_\_\_\_\_\_\_\_\_\_\_\_ |
| 4 | Stop program |

When the green flag is clicked, if the **bat** touches the **butterfly**, then bat will go to a random position.

1. Identify the condition and conclusion in the second algorithm i.e. **algorithm for the bat. [1]**

**Condition** if the bat is touching the butterfly

**Conclusion** go to a random position

1. Edit the **algorithm for the butterfly** to repeat step 2 five times in total. **[2]**
2. Start when green flag Is clicked
3. Glide for 1 second towards the bat
4. Repeat step 2 four more times
5. Stop program