PYTCH QUIZ

Select the correct answer for each of the 12 questions. If more than one answer is correct, the question will say something like “Select all answers that are correct”.

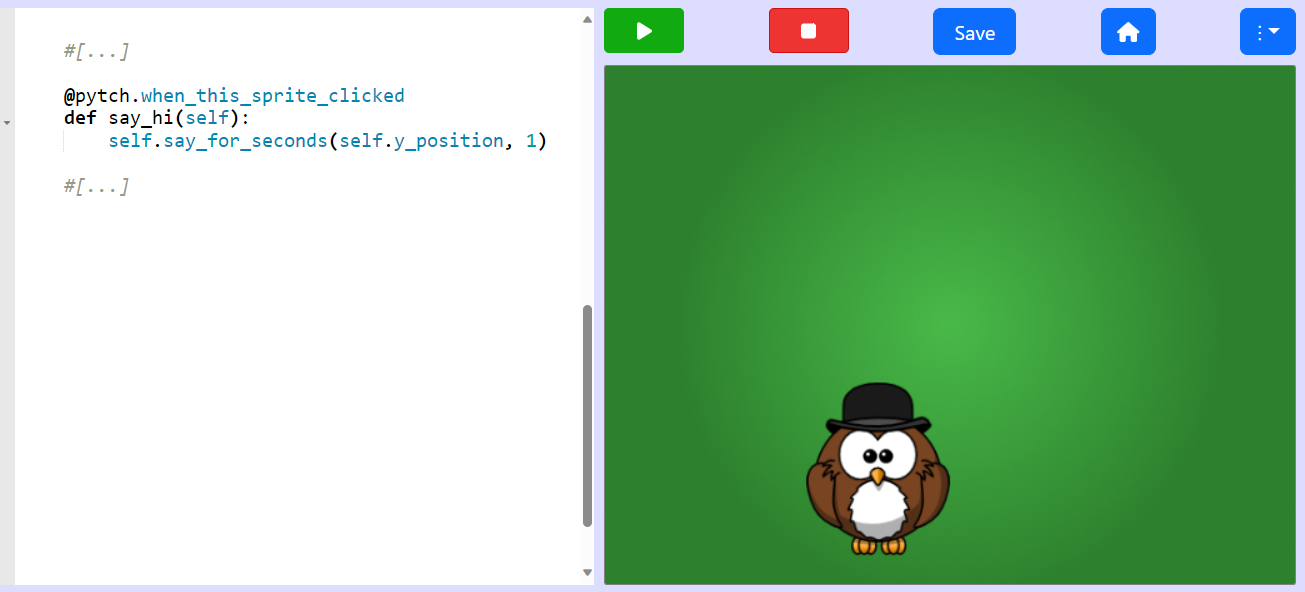
1. **What language do you write programs in when using Pytch?**
   1. Python
   2. JavaScript
   3. C++
   4. Rust
2. **Which of the following example/s of Pytch code is/are indented correctly? Select all answers that are correctly indented.**

|  |  |
| --- | --- |
| **a.** | self**.**say\_for\_seconds**(**"Hello!"**,** 2.0**)** self**.**say\_for\_seconds**(**"Go!"**,** 1.0**)** **if** self**.**difficulty **>** 2**:** self**.**glide\_to\_xy**(**0**,** **-**100**,** 2**)** self**.**glide\_to\_xy**(**0**,** 100**,** 2**)** |
| **b.** | self**.**say\_for\_seconds**(**"Hello!"**,** 2.0**)** self**.**say\_for\_seconds**(**"Go!"**,** 1.0**)** **if** self**.**difficulty **>** 2**:**  self**.**glide\_to\_xy**(**0**,** **-**100**,** 2**)** self**.**glide\_to\_xy**(**0**,** 100**,** 2**)** |
| **c.** | self**.**say\_for\_seconds**(**"Hello!"**,** 2.0**)** self**.**say\_for\_seconds**(**"Go!"**,** 1.0**)** **if** self**.**difficulty **>** 2**:**  self**.**glide\_to\_xy**(**0**,** **-**100**,** 2**)**  self**.**glide\_to\_xy**(**0**,** 100**,** 2**)** |
| **d.** | self**.**say\_for\_seconds**(**"Hello!"**,** 2.0**)**  self**.**say\_for\_seconds**(**"Go!"**,** 1.0**)** **if** self**.**difficulty **>** 2**:**  self**.**glide\_to\_xy**(**0**,** **-**100**,** 2**)**  self**.**glide\_to\_xy**(**0**,** 100**,** 2**)** |

1. **Suppose the Owl sprite has the script below, and that it is in the position shown on the stage.**

when this sprite clicked

self**.**say\_for\_seconds**(**self**.**y\_position**,** 1**)**



**What will the owl say when you click on it?**

|  |  |  |  |
| --- | --- | --- | --- |
| **a.** |  | **b.** |  |
| **c.** |  | **d.** |  |
| **e.** |  |  |  |

1. **A sprite has these two scripts (and no others):**

when green flag clicked

self**.**go\_to\_xy**(**100**,** 50**)**

when key “m” pressed

self**.**change\_y**(-**10**)**

**You click on the green flag and then press “m” four times. Where is the sprite now?**

|  |  |
| --- | --- |
| 1. Its *x*-coordinate is 100 and its *y*-coordinate is 90. | 1. Its *x*-coordinate is 100 and its *y*-coordinate is 10. |
| 1. Its *x*-coordinate is 140 and its *y*-coordinate is 50. | 1. Its *x*-coordinate is 60 and its *y*-coordinate is 50. |

1. **Which of the following pieces of code will make a sprite move right and left forever? Select all answers that are correct.**

|  |  |
| --- | --- |
| **a.** | **while** True**:**  self**.**glide\_to\_xy**(**150**,** 0**,** 3**)** |
| **b.** | **while** True**:**  self**.**glide\_to\_xy**(**160**,** 0**,** 3**)**  self**.**glide\_to\_xy**(-**180**,** 0**,** 3**)** |
| **c.** | **while** False**:**  self**.**glide\_to\_xy**(**160**,** 0**,** 3**)**  self**.**glide\_to\_xy**(-**180**,** 0**,** 3**)** |
| **d.** | **while** True**:**  self**.**glide\_to\_xy**(**160**,** 0**,** 3**)**  self**.**glide\_to\_xy**(**random**.**randint**(-**100**,** 0**),** 0**,** 3**)** |

1. **Suppose your Pytch project has an Owl sprite with just this script:**

when green flag clicked

self**.**say\_for\_seconds**(**random**.**randint**(**2**,** 6**),** 8**)**

**Which of the following sets of numbers describe all of the possible things the Owl could say when the green flag is clicked?**

* 1. 0, 2, or 6
  2. 2, 6, or 8
  3. 2, 3, 4, 5, or 6
  4. 3, 4, or 5

1. **Suppose your Pytch project has an Owl sprite, with this script:**

when green flag clicked

self**.**score **=** 0

**Which of the following lines of code will increase the score by 5 points? Select all answers that are correct.**

|  |  |
| --- | --- |
| **a.** | self**.**score **=** 5 |
| **b.** | self**.**score **=** self**.**score **+** 5 |
| **c.** | self**.**score **>** 5 |
| **d.** | self **<-** score **+** 5 |
| **e.** | self**.**score **=** 5 **+** self**.**score |

1. **Suppose the Owl sprite has this script:**

when this sprite clicked

self**.**switch\_costume**(**"without-hat.png"**)**  
**if** self**.**touching**(**Mouse**):**  
 self**.**switch\_costume**(**"with-hat.png"**)**

**and the player has just clicked on the Owl. The costumes are as described by their names. Which of the following results are possible, depending on where the Mouse and the Owl happen to be when the Owl is clicked? Select all answers that are correct.**

|  |  |  |  |
| --- | --- | --- | --- |
| a. |  | b. |  |
| c. |  | d. |  |

1. **We want to make the sprite disappear if it is in the bottom right-hand quarter of the stage and not otherwise. Select the section of code that will do this.**

|  |  |
| --- | --- |
| **a.** | **if** self**.**y\_position **==** 0**:**  **if** self**.**x\_position **==** 0**:**  self**.**hide**()** |
| **b.** | **if** self**.**y\_position **<** 0**:** **if** self**.**x\_position **>** 0**:**  self**.**hide**()** |
| **c.** | **if** self**.**y\_position **>** 0**:**  self**.**hide**()** |
| **d.** | **if** self**.**y\_position **<** 0**:**  **if** self**.**x\_position **>** 0**:**  self**.**hide**()** |

1. **Suppose your project has an owl Sprite, which has this script:**

when green flag clicked

number **=** 0  
score **=** 1  
score **=** score **+** 6  
  
self**.**go\_to\_xy**(-**100**,** **-**100**)**  
self**.**set\_size**(**0.5**)**  
  
**if** number **>** 0**:**  
 self**.**say\_for\_seconds**(**"A"**,** 10**)**  
  
**if** score **<** 6**:**  
 self**.**say\_for\_seconds**(**"B"**,** 10**)**  
  
**if** score **>** 2**:**  
 self**.**say\_for\_seconds**(**"C"**,** 10**)**  
  
**if** score **>** 7**:**  
 self**.**say\_for\_seconds**(**"D"**,** 10**)**

**Which one of the following will be said by the sprite when the green flag is clicked?**

|  |  |  |  |
| --- | --- | --- | --- |
| a. |  | b. |  |
| c. |  | d. |  |

1. **Suppose we have a Pytch project with one sprite. The sprite has these costumes in this order:**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |

**The sprite has these two scripts:**

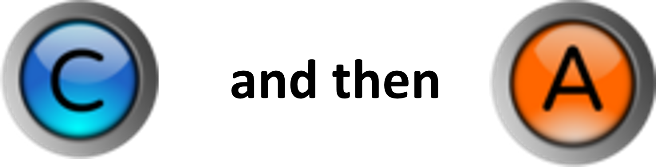
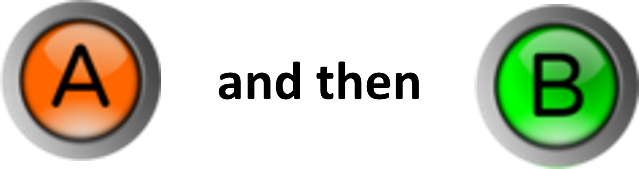
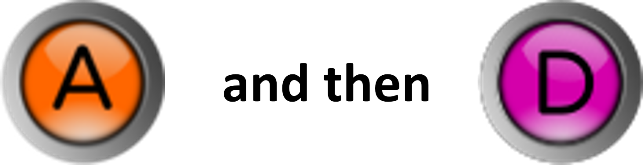
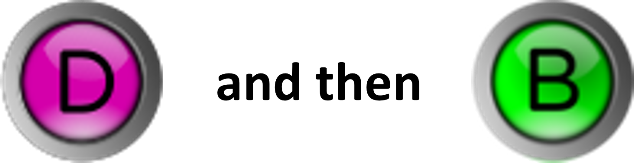
when green flag clicked

self**.**switch\_costume**(**3**)**

when “x” key pressed

self**.**switch\_costume**(**1**)**

**If you start the program with the green flag, then you press the “x” key, what do you see?**

* 1. ****
  2. ****
  3. ****
  4. ****

1. **Which one of the following pieces of code will result in the sprite saying exactly 10 different numbers one after the other?**

|  |  |
| --- | --- |
| **a.** | score **=** 5 **while** score **<** 10**:**  self**.**say\_for\_seconds**(**score**,** 1**)**  score **=** score **+** 1 |
| **b.** | score **=** 5 **while** True**:**  self**.**say\_for\_seconds**(**score**,** 1**)**  score **=** score **+** 1 |
| **c.** | score **=** 10 **while** score **<** 15**:**  self**.**say\_for\_seconds**(**score**,** 1**)**  score **=** score **+** 1 |
| **d.** | score **=** 5 **while** score **<** 15**:**  self**.**say\_for\_seconds**(**score**,** 1**)**  score **=** score **+** 1 |