

PYTCH QUIZ

Select the correct answer for each of the 12 questions. If there are more than one answer correct you will find this text at the end of the question “Select all answers that are correct.”

1. What language do you write programs in when using Pytch?

- a. Python
- b. JavaScript
- c. C++
- d. Rust

2. Which one of the following examples of Pytch code is indented correctly

a.

```
import pytch

class Snake(pytch.Sprite):
    Costumes = ["Snake.png"]

    @pytch.when_this_sprite_clicked
    def speak(self):
        self.say_for_seconds("Hello there!", 2.0)
        self.say_for_seconds("Go!", 1.0)
        while True:
            self.glide_to_xy(0, -100, 2)
            self.glide_to_xy(0, 100, 2)
```

b.

```
import pytch

class Snake(pytch.Sprite):
    Costumes = ["Snake.png"]

    @pytch.when_this_sprite_clicked
    def speak(self):
        self.say_for_seconds("Hello there!", 2.0)
        self.say_for_seconds("Go!", 1.0)
        while True:
            self.glide_to_xy(0, -100, 2)
            self.glide_to_xy(0, 100, 2)
```

c.

```
import pytch

class Snake(pytch.Sprite):
    Costumes = ["Snake.png"]

    @pytch.when_this_sprite_clicked
    def speak(self):
        self.say_for_seconds("Hello there!", 2.0)
        self.say_for_seconds("Go!", 1.0)
        while True:
            self.glide_to_xy(0, -100, 2)
            self.glide_to_xy(0, 100, 2)
```

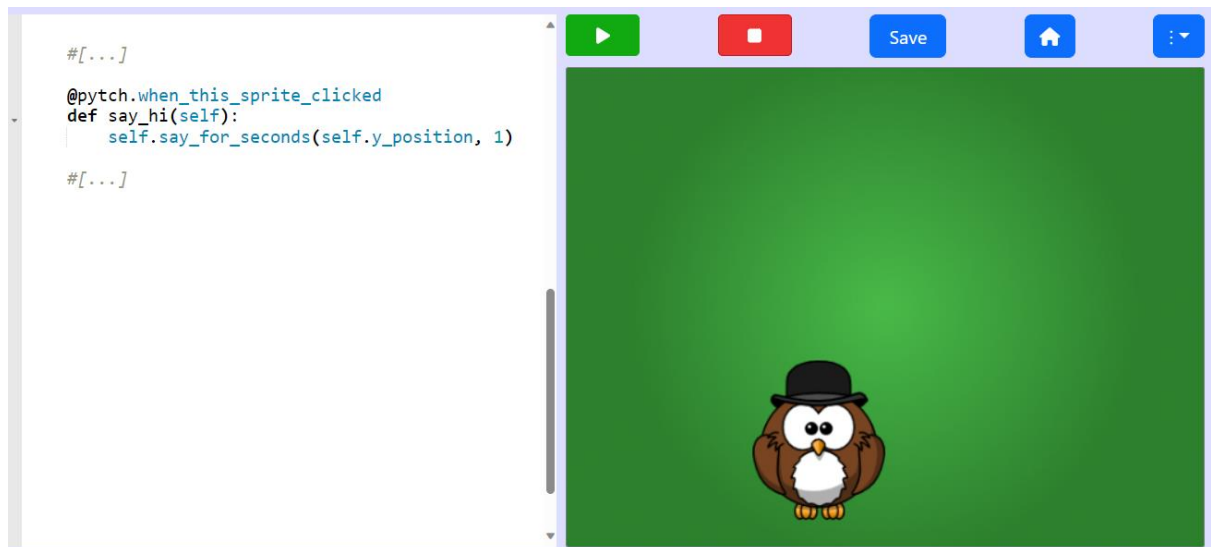
d.

```
import pytch

class Snake(pytch.Sprite):
    Costumes = ["Snake.png"]

    @pytch.when_this_sprite_clicked
    def speak(self):
        self.say_for_seconds("Hello there!", 2.0)
        self.say_for_seconds("Go!", 1.0)
        while True:
            self.glide_to_xy(0, -100, 2)
            self.glide_to_xy(0, 100, 2)
```

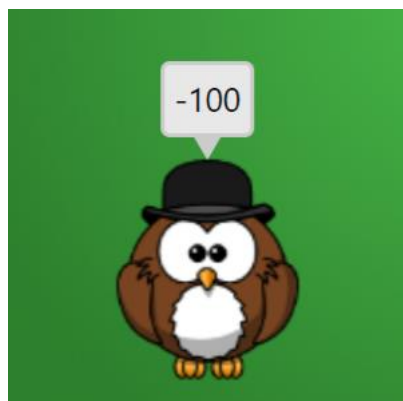
3. Suppose the Owl sprite has the script below and it is in the position showed on the stage. What will the owl say when you click on it?



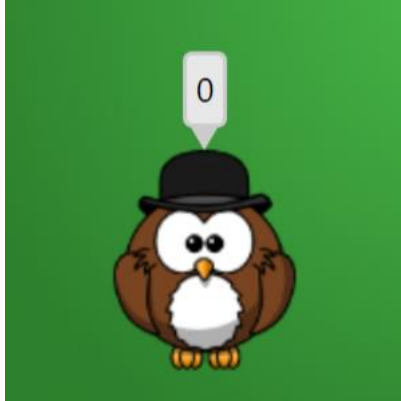
a.



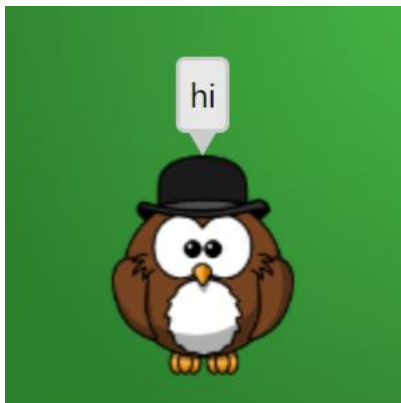
b.



c.



d.



e.



4. Which of the following Pytch code will let you to create 2 sprites?

a.

```
import pytch

class Snake(pytch.Sprite):
    Costumes = ["Snake.png"]

class Snake(pytch.Sprite):
    Costumes = ["bird.png"]
```

b.

```
import pytch

class Bird(pytch.Stage):
    Costumes = ["bird.png"]

class Snake(pytch.Sprite):
    Costumes = ["Snake.png"]
```

c.

```
import pytch

class Snake(pytch.Sprite):
    Costumes = ["Snake.png"]

class Bird(pytch.Sprite):
    Costumes = ["bird.png"]
```

d.

```
import pytch

class Sprites(pytch.Sprite):
    Costumes = ["Snake.png"]
    Costumes = ["bird.png"]
```

5. Which of the following functions will make the car move right and left forever when the green flag is clicked? Select all answers that are correct.

a.

```

1 import pytch
2
3
4 class Car(pytch.Sprite):
5     Costumes = ["car.png"]
6
7     @pytch.when_green_flag_clicked
8     def move_car(self):
9         while True:
10             self.glide_to_xy(150,0,3)
11
12

```

b.

```

1 import pytch
2
3
4 class Car(pytch.Sprite):
5     Costumes = ["car.png"]
6
7
8     @pytch.when_green_flag_clicked
9     def move_car(self):
10         while True:
11             self.glide_to_xy(160,0,3)
12             self.glide_to_xy(-180,0,3)
13

```

c.

```

1 import pytch
2
3
4 class Car(pytch.Sprite):
5     Costumes = ["car.png"]
6
7
8     @pytch.when_green_flag_clicked
9     def move_car(self):
10         while False:
11             self.glide_to_xy(160,0,3)
12             self.glide_to_xy(-180,0,3)
13
14

```

d.

```

1 import pytch
2 import random
3
4
5 class Car(pytch.Sprite):
6     Costumes = ["car.png"]
7
8
9     @pytch.when_green_flag_clicked
10    def move_car(self):
11        while True:
12            self.glide_to_xy(160,0,3)
13            self.glide_to_xy(random.randint(-100,0), 0, 3)
14
15

```

6. Suppose your Pytch project has the below Owl sprite. Which of the following sets of numbers describe all of the possible things the Owl could say when the green flag is clicked?

```
1 import pytch
2 import random
3
4
5 class Owl(pytch.Sprite):
6     Costumes = ["owl.png"]
7
8
9     @pytch.when_green_flag_clicked
10    def play(self):
11        self.say_for_seconds(random.randint(2,6), 10)
12
13
```

- a. 0, 2 or 6
- b. 2 or 6
- c. 2, 3, 4, 5 or 6
- d. 3, 4, or 5

7. Suppose your Pytch project has the below Owl sprite. Which of the following scripts will make the score increase by 5 points each time the letter 'a' is clicked? Select all answers that are correct.

```
import pytch

class Owl(pytch.Sprite):
    Costumes = ["owl.svg"]
    Score = 0
```

a.

```
@pytch.when_key_pressed("a")
def add_points(self):
    self.Score=5
```

b.

```
@pytch.when_key_pressed("a")
def add_points(self):
    self.Score= self.Score + 5
```

c.

```
@pytch.when_key_pressed("a")
def add_points(self):
    self.Score > 5
```

d.

```
@pytch.when_key_pressed("a")
def add_points(self):
    self <- Score + 5
```

e.

```
@pytch.when_key_pressed("a")
def add_points(self):
    self.Score = 5 + self.Score
```

8. Suppose the Owl sprite has the below script, 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.

```
@pytch.when_this_sprite_clicked
def choose_costume(self):
    self.switch_costume("owl-without-hat")
    if self.touching(Mouse):
        self.switch_costume("owl-with-hat")
```



9. 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()
```

10. Suppose your project has the below owl Sprite. Which one of the following will be said by the sprite when the green flag is clicked?

```

1  import pytch
2
3
4  class Owl(pytch.Sprite):
5      Costumes = ["owl.svg"]
6
7
8      @pytch.when_green_flag_clicked
9      def function(self):
10         number = 0
11         score = 1
12         score = score + 6
13
14         if number > 0:
15             self.say_for_seconds("A", 10)
16
17         if score < 6:
18             self.say_for_seconds("B", 10)
19
20         if score > 2:
21             self.say_for_seconds("C", 10)
22
23         if score > 7:
24             self.say_for_seconds("D", 10)
25

```

a.



b.



c.



d.











11. Suppose we have the below Pytch project where the costumes are described by their names (e.g. button with letter A is "A.png"). If you start the program with the green flag, then you press the "x" key. What do you see on the stage?

```

1 import pytch
2
3
4 class Button(pytch.Sprite):
5     Costumes = ["A.png", "B.png", "C.png", "D.png"]
6
7     @pytch.when_green_flag_clicked
8     def set_up(self):
9         self.switch_costume(3)
10
11     @pytch.when_key_pressed("x")
12     def new_costume(self):
13         self.switch_costume(1)
14
15

```

- a.  and then 
- b.  and then 
- c.  and then 
- d.  and then 

12. Which one of the following scripts when run will result in the snake saying 10 different numbers one after the other (have a while loop run 10 times every time) when the green flag is clicked?

a.

```
@pytch.when_green_flag_clicked
def start(self):
    score=5
    while score < 10:
        self.say_for_seconds(score, 1)
        score=score + 1
```

b.

```
@pytch.when_green_flag_clicked
def start(self):
    score=5
    while True:
        self.say_for_seconds(score, 1)
        score=score + 1
```

c.

```
@pytch.when_green_flag_clicked
def start(self):
    score=10
    while score < 15:
        self.say_for_seconds(score, 1)
        score=score + 1
```

d.

```
@pytch.when_green_flag_clicked
def start(self):
    score=5
    while score < 15:
        self.say_for_seconds(score, 1)
        score=score + 1
```