
Control Flow

— If/Else -blocks —

Assignment 1 - overview

Question 1.

```
pi = 3.14
r = float(input('Give r: '))

area = pi*r**2
print(area)
```

Question 2.

```
name = input('What is your name? ')
```

```
print("Your name is "+name+".")
```

```
year = int(input(name+', what year were you born? '))
```

```
age = 2020-year
```

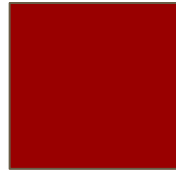
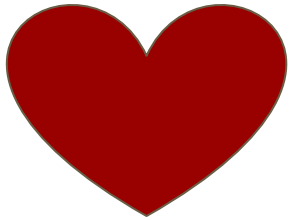
```
print("You are "+str(age)+" years old.")
```

if vs elif vs else

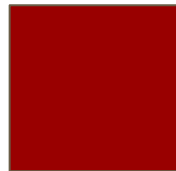
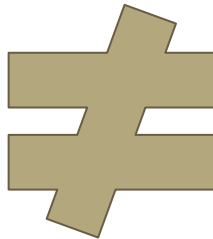
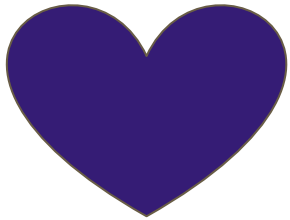
- Condition statements
 - If condition x is true
 - Print out x
 - Elif condition y is true
 - Print out y
 - Else
 - Print out z

If

- If the heart is red
 - then print("The heart is red")
- If the heart is not red
 - then print ("The heart is not red")



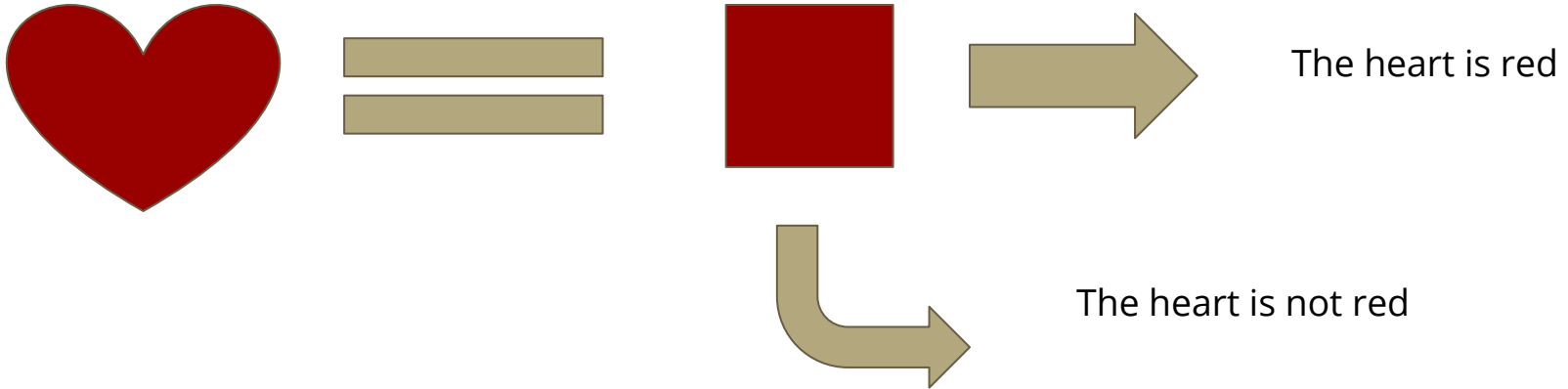
The heart is red



The heart is not red

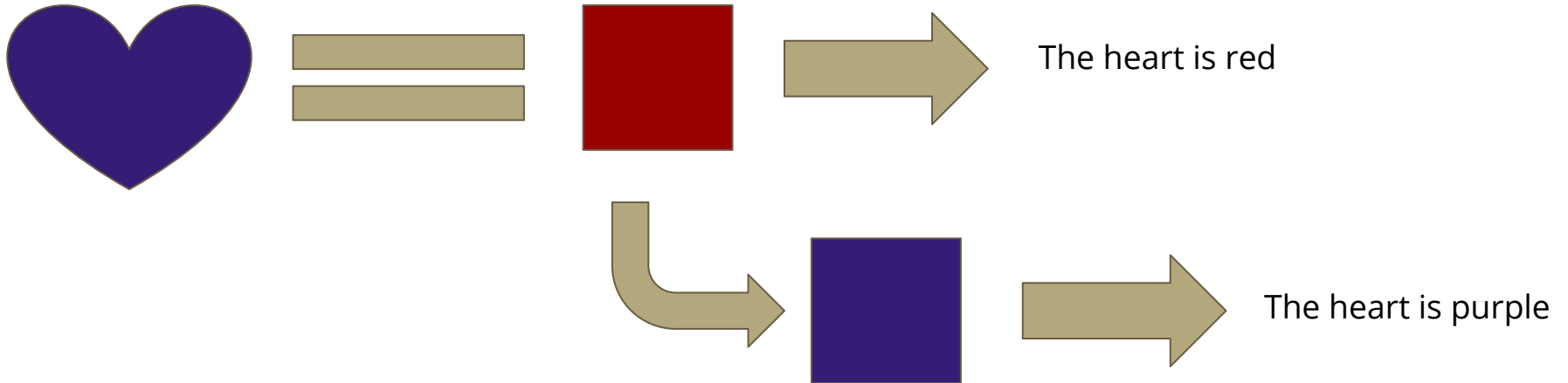
Else

- If the heart is red
 - then print("The heart is red")
 - else print("The heart is not red")



Elif

- If the heart is red
 - then print("The heart is red")
 - else if the heart is purple
 - then print("The heart is purple")



Syntax

if 10 is 5:

```
    print("equal")
```

elif 10 >= 5:

```
    print("greater or equal")
```

else:

```
    print("neither")
```


Demo

1. `if()`
2. `elif()`
3. `else()`
4. Boolean type()

Try/Except

- Exception or error handling

Syntax:

```
try:
```

```
    x/0
```

```
except:
```

```
    print("can't divide by zero")
```

Demo

1. Try
2. Except

Class assignment 2

1. Assume days of the week are numbered (0,1,2,3,4,5,6) from Sunday-Saturday. Write a function which is given the day number, and it returns the day name (a string).
 - a. Use input() to get the day number
2. Write a program that takes in two integer numbers and divides them. Make sure you make sure the program doesn't break even if you give it values that it doesn't comprehend or that will cause the program to fail.

[Answer form](#)

Assignment 2

1. Write a python program that asks the user the following question.
 - a. What year student are you?
 - i. If they answer 1:
 1. Print "Welcome to York University!"
 - ii. If they answer 2:
 1. Print "Almost halfway done!"
 - iii. If they answer 3:
 1. Print "Just a little more!"
 - iv. If they answer 4:
 1. Print "Final stretch!"
 - v. If they answer anything else:
 1. Print "Please answer with a number between 1-4."

Assignment 2 (cont.)

2. Write a python program that will take an input from the user and check if the input is a string or integer.
 - a. Example 1:
 - i. Input: Give an example input. 123
 - ii. Output: Your input was an integer.
 - b. Example 2:
 - i. Input: Give an example input. Hello World
 - ii. Output: Your input was a string.
 - c. Extra practice: (optional)
 - i. Add a check for a float type.