Unit 3 - Week 1 Quiz

Week 1 Quiz

The due date for submitting this assignment has passed. **Due on 2019-02-06, 23:59 IST.**

Assignment submitted on 2019-02-06, 21:02 IST

All questions carry equal weightage. All Python code is assumed to be executed using Python3. You may submit as many times as you like within the deadline. Your final submission will be graded.

1) What is the value of `f(255)` for the function below?

```
def f(x):
    d=0
    while x >= 1:
        (x,d) = (x/4,d+1)
    return(d)
```

4

Yes, the answer is correct.
Score: 2.5

Accepted Answers:
(Type: String) 4

2.5 points

2) What is `h(28) - h(27)`, given the definition of `h` below?

```
def h(n):
    s = 0
    for i in range(1,n):
        if n%i == 0:
            s = s+i
    return(s)
```

15

Yes, the answer is correct.
Score: 2.5

Accepted Answers:
(Type: String) 15

2.5 points

3) For what value of `n` would `g(47,n)` return `5`? If there are multiple possibilities, write any one.

```
def g(m,n):
    res = 0
```

```
    while m >= n:
        (res,m) = (res+1,m-n)
    return(res)
```

8

Yes, the answer is correct.
Score: 2.5

Accepted Answers:
(Type: String) 9
(Type: String) 8

2.5 points

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4) Consider the following function `f`:

```
def mys(m):
  if m == 0:
    return(1)
  else:
    return(m*mys(m-1))
```

Which of the following is correct?

- The function always terminates with mys(n) = factorial of n
- The function always terminates with mys(n) = 1+2+...+n
- The function terminates for nonnegative n with mys(n) = factorial of n
- The function terminates for nonnegative n with mys(n) = 1+2+...+n

Yes, the answer is correct.
Score: 2.5

Accepted Answers:
The function terminates for nonnegative n with mys(n) = factorial of n

End