Review Questions

1. The following code is executed

```
def f(x):
        return x + 2, x * 2

x, y = f(5)
print(x + y)
```

What is the output produced by the print() statement?

(a) 7 10
(b) 17
(c) x + y
(d) This produces an error.
(e) None of the above.

2. True or False: Names that are valid for variables are also valid for functions.

3. What output is produced by the print() statement when the following code is executed?

```
def calc_q1(x):
        q = 4 * x + 1
        return q

calc_q1(5)      Supposed to be q = calc_q1(5)
print(q)
```

(a) 24
(b) 21
(c) q
(d) This produces an error.
(e) None of the above.

4. What is the value of q after the following code has been executed?

```
def calc_q2(x):
        q = 4 * x + 1
        print(q)

q = calc_q2(5)
```

(a) 24
(b) 21
(c) This produces an error.
(d) None of the above.

5. What is the value of q after the following code has been executed?

```
q = 20
def calc_q3(x):
        q = 4 * x + 1
        return q

q = calc_q3(5)
```

(a) 24
(b) 21
(c) This produces an error.
(d) None of the above.

6. What is the output produced by the print() statement in the following code?

```
def calc_q4(x):
        q = 4 * x + 1

print(calc_q4(5))
```

(a) 24
(b) 21
(c) q
(d) This produces an error.
(e) None of the above.

7. What is the output of the print() statement in the following code?

```
abc = 5 + 6 // 12
print(abc)
```

(a) This produces an error.
(b) 5 + 6 // 12
(c) 5
(d) 5.5
(e) 6

8. What is the output of the print() statement in the following code?

```
def = 5 + 6 % 7
print(def)
```

(a) This produces an error.
(b) 5 + 6 % 7
(c) 11
(d) 4

You are not allowed to use def as a variable

9. The following code is executed:

```
def get_input():
        x = float(input("Enter a number: "))
        return x

def main():
        get_input()
        print(x ** 2)

main()
```

because the x is undefined

At the prompt the user enters 2. What is the output of this program?
(a) x ** 2
(b) 4
(c) 4.0
(d) This produces an error.
(e) None of the above.

10. The following code is executed:

```
def get_input():
        x = float(input("Enter a number: "))
        return x

def main():
        print(get_input() ** 2)

main()
```

At the prompt the user enters 2. What is the output of this program?
(a) get_input() ** 2
(b) 4
(c) 4.0
(d) This produces an error.
(e) None of the above.

11. What is the value of z after the following code is executed?

```
def f1(x, y):
        print((x + 1) / (y - 1))

z = f1(3, 3) + 1
```

(a) 3
(b) 3.0
(c) 2
(d) This produces an error.

12. What is the value of z after the following code is executed?

```
def f2(x, y):
        return (x + 1) / (y - 1)

z = f2(3, 3) + 1
```

(a) 3
(b) 3.0
(c) 2
(d) This produces an error.
(e) None of the above.

13. What is the value of z after the following code is executed?

```
def f3(x, y = 2):
        return (x + 1) / (y - 1)

z = f3(3, 3) + 1
```

(a) 3
(b) 3.0
(c) 2
(d) This produces an error.
(e) None of the above.

14. What is the value of z after the following code is executed?

```
def f3(x, y = 2):
        return (x + 1) / (y - 1)
z = f3(3) + 1
```

(a) 3
(b) 3.0
(c) 2
(d) This produces an error.
(e) None of the above.

15. The following code is executed.

```
def inc_by_two(x):
        x = x + 2
        return x

x = 10
inc_by_two(x)
print("x = ", x)
```

What is the output produced by the print() statement?

X = 10