

## 4.10 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)  
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

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()
```

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?