

Dry Run Exercises (Python)

1. What are the final values stored in x and y after the following code fragment has executed?

```
x = 5
```

```
y = 7
```

```
x = y
```

The final value of x is _____ The final value of y is _____

Solve this by doing a dry run, filling in the value in the boxes

After

```
x = 5
```

has executed the variables hold the following values:

x

After

```
y = 7
```

has executed the variables hold the following values:

x

y

After

```
x = y
```

has executed the variables hold the following values:

x

y

2. What are the final values stored in x and y after the following code fragment has executed?

x = 5

y = 7

y = x

The final value of x is _____ The final value of y is _____

Solve this by doing a dry run, filling in the value in the boxes

After

x = 5

has executed the variables hold the following values:

x

After

y = 7

has executed the variables hold the following values:

x

y

After

y = x

has executed the variables hold the following values:

x

y

3. What are the final values stored in x and y after the following code fragment has executed?

y = 7

x = 5

y = x

The final value of x is _____ The final value of y is _____

Solve this by doing a dry run, filling in the value in the boxes

After

y = 7

has executed the variables hold the following values:

y

After

x = 5

has executed the variables hold the following values:

x

y

After

y = x

has executed the variables hold the following values:

x

y

4. What are the final values stored in red and blue after the following code fragment has executed?

```
red = "red"  
blue = "yellow"  
red = blue
```

The final value of red is _____ The final value of blue is _____

Solve this by doing a dry run, filling in the value in the boxes

After red = "red" has executed the variables hold the following values:

red

After blue = "yellow" has executed the variables hold the following values:

red

blue

After

```
red = blue
```

has executed the variables hold the following values:

red

blue

5. What are the final values stored in x and y after the following code fragment has executed?

```
y = 7  
x = 5  
y = x  
x = 3
```

The final value of x is _____ The final value of y is _____

Solve this by doing a dry run, filling in the value in the boxes

After

```
y = 7
```

has executed the variables hold the following values:

y

After

```
x = 5
```

has executed the variables hold the following values:

x

y

After

```
y = x
```

has executed the variables hold the following values:

x

y

After

```
x = 3
```

has executed the variables hold the following values:

x

y

6. What are the final values in x, y and z after the following code fragment has executed?

x = 1

y = 2

z = 3

y = x

x = y

The final value of x is ____ The final value of y is ____ The final value of z is ____

Solve this by doing a dry run, filling in the value in the boxes

After x = 1 has executed the variables hold the following values:

x

After y = 2 has executed the variables hold the following values:

x

y

After z = 3 has executed the variables hold the following values:

x

y

z

After y = x has executed the variables hold the following values:

x

y

z

After x = y has executed the variables hold the following values:

x

y

z

7. What are the final values in one, two and three after the following code fragment has executed?

```
one = 1
```

```
two = 3
```

```
three = 2
```

```
one = two
```

```
two = three
```

The final value of one is ___

The final value of two is ___

The final value of three is ___

Solve this by doing a dry run, filling in the value in the boxes

After `one = 1` has executed the variables hold the following values:

one

After `two = 3` has executed the variables hold the following values:

one

two

After `three = 2` has executed the variables hold the following values:

one

two

three

After `one = two` has executed the variables hold the following values:

one

two

three

After `two = three` has executed the variables hold the following values:

one

two

three

8. What are the final values in a, b and c after the following has executed?

a = 9

b = 7

c = 8

a = c

b = a

c = b

The final value of a is ____ The final value of b is ____ The final value of c is ____

Solve this by doing a dry run, filling in the value in the boxes

After a = 9 has executed the variables hold the following values:

a

After b = 7 has executed the variables hold the following values:

a

b

After c = 8 has executed the variables hold the following values:

a

b

c

After a = c has executed the variables hold the following values:

a

b

c

After b = a has executed the variables hold the following values:

a

b

c

After c = b has executed the variables hold the following values:

a

b

c

9. What are the final values in a, b and c after the following has executed?

a = 1

b = 2

c = 3

c = b

c = a

a = b

The final value of a is ___ The final value of b is ___ The final value of c is ___

Solve this by doing a dry run, filling in the value in the boxes

After a = 1 has executed the variables hold the following values:

a

After b = 2 has executed the variables hold the following values:

a

b

After c = 3 has executed the variables hold the following values:

a

b

c

After c = b has executed the variables hold the following values:

a

b

c

After c = a has executed the variables hold the following values:

a

b

c

After a = b has executed the variables hold the following values:

a

b

c

10. What are the final values in x, y and z after the following has executed?

$x = 3$

$y = 2$

$z = 3$

$z = y$

$y = x$

$x = z$

The final value of x is ____ The final value of y is ____ The final value of z is ____

Solve this by doing a dry run, filling in the value in the boxes

After $x = 3$ has executed the variables hold the following values:

x

After $y = 2$ has executed the variables hold the following values:

x

y

After $z = 3$ has executed the variables hold the following values:

x

y

z

After $z = y$ has executed the variables hold the following values:

x

y

z

After $y = x$ has executed the variables hold the following values:

x

y

z

After $x = z$ has executed the variables hold the following values:

x

y

z