Exposure CS 2021 for CS1

Chapter 4 Output Slides

For Students

PowerPoint Presentation
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Output Programs

These slides will present a variety of small programs. Each program has at least one variable and at least one command where the value of a variable is displayed. Several of these programs involve the use of various mathematical operators.

Our concern will be with the output of each program, and more importantly, developing a way to determine program output correctly.

This is a very important skill, especially when you need to debug a program with logic errors.

Teacher/Student Versions, Tablet PCs, and Inking

The *"For Teachers"* version of this presentation has 2 or more slides for each program.

The first slide only shows the program.
The other slide(s) show the program, worked out solution, and output.

The *"For Students"* version only has 1 slide for each program with no provided solution or output. Students are expected to work out the solutions either on paper, or ideally they can "ink" directly on their laptops.

```
1  # Output0401.py
2
3  j = 25
4  print(j)
5
6
7
8
9
10
```

```
1  # Output0402.py
2
3  j = 25
4  print("j")
5
6
7
8
9
10
```

```
1  # Output0403.py
2
3  j = 25
4  print("j =",j)
5
6
7
8
9
10
```

```
1  # Output0404.py
2
3  print(j)
4
5
6
7
8
9
10
```

```
1  # Output0405.py
2
3  j = 10
4  j += 1
5  print(j)
6
7
8
9
10
```

```python
# Output0406.py

j = 10
j += 1
j += 1
j += 1
j += 1
print(j)

```

```
1  # Output0407.py
2
3  j = 10
4  j += 1
5  j -= 1
6  j += 1
7  j -= 1
8  print(j)
9
10
```

```
1  # Output0408.py
2
3  j = 100
4  j += 50
5  print(j)
6
7
8
9
10
```

```python
# Output0409.py

j = 100
j += 50
j -= 70
print(j)
```

```python
# Output0410.py

j = 100
j *= 5
print(j)
```

```
1  # Output0411.py
2
3  j = 105
4  j /= 7
5  j /= 3
6  print(j)
7
8
9
10
```

```
1  # Output0412.py
2
3  p = 10
4  q = 20
5  p *= 7
6  q *= 4
7  r = p + q
8  print(r)
9
10
```

```
1  # Output0413.py
2
3  p = q = 60
4  p /= 5
5  q /= 6
6  r = p - q
7  r -= 1
8  print(r)
9
10
```

```
1  # Output0414.py
2
3  p = 12
4  q = 9
5  r = p * q
6  p += 1
7  q -= 1
8  print(p)
9  print(q)
10 print(r)
11
```

```
1  # Output0415.py
2
3  p = 35
4  q = 10
5  r = p / q
6  print(r)
7
8
9
10
```

```python
# Output0416.py

p = 35
q = 10
r = p // q
print(r)
```

```
1  # Output0417.py
2
3  p = 35
4  q = 10
5  r = p % q
6  print(r)
7
8
9
10
```

```python
# Output0418.py

p = 2
q = 5
r = p ** q
s = q ** p
t = r - s
print(t)


```

```
1  # Output0419.py
2
3  a = 3
4  b = 4
5  c = a + b
6  c += 1
7  d = 2 * b
8  e = c - d
9  f = d / e
10 print(f)
11
```

```
1  # Output0420.py
2
3  p = 12.34
4  q = 43.21
5  r = p + q
6  print(r)
7
8
9
10
```

```
1  # Output0421.py
2
3  p = "12.34"
4  q = "43.21"
5  r = p + q
6  print(r)
7
8
9
10
```

```
1  # Output0422.py
2
3  p = 12.34
4  q = "43.21"
5  r = p + q
6  print(r)
7
8
9
10
```

```
1  # Output0423.py
2
3  p = 25
4  q = 10
5  r = p / q
6  s = q / r
7  print(s)
8
9
10
```

```python
# Output0424.py

p = 25
q = 10
r = p // q
s = q // r
print(s)


```

```python
# Output0425.py

p = 1 + 3 * 5 - 4 / 2
q = (1 + 3 * 5 - 4) / 2
r = (1 + 3) * ((5 - 4) // 2)
s = ((1 + 3) * (5 - 4)) / 2

print(p)
print(q)
print(r)
print(s)

```