

Exposure CS 2022 for CS1

Chapter 7 Output Slides

For Students

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Output Programs

These slides will present a variety of small programs. Each program example either has a selection control structure or some type of numeric formatting.

Our concern will be with the output of each program, and more importantly, developing a way to determine program output correctly for programs that involve selection control structures and numeric formatting.

You can expect that on quizzes and/or tests that only a program segment may be shown.

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 # Output0701
2
3 print()
4 x = 100
5 if x == 100:
6     print("Hello")
7
8
9
10
```

```
1 # Output0702
2
3 print()
4 x = 99
5 if x == 100:
6     print("Hello")
7
8
9
10
```

```
1 # Output0703
2
3 print()
4 x = 101
5 if x > 100:
6     print("Hello")
7 else:
8     print("Goodbye")
9
10
```

```
1 # Output0704
2
3 print()
4 x = 100
5 if x > 100:
6     print("Hello")
7 else:
8     print("Goodbye")
9
10
```

```
1 # Output0705
2
3 print()
4 x = 100
5 if x >= 100:
6     print("Hello")
7 else:
8     print("Goodbye")
9
10
```



```
1  # Output0706
2
3  grade = eval(input("Enter grade 9-12: "))
4  if grade == 9:
5      print("Freshman")
6  if grade == 10:
7      print("Sophomore")
8  if grade == 11:
9      print("Junior")
10 if grade == 12:
11     print("Senior")
12
```

**What is the
output after
the user
enters 10?**

```
1 # Output0707
2
3 print()
4 gpa = 3.88
5 if gpa >= 3.9:
6     print("Summa Cum Laude")
7 if gpa >= 3.75:
8     print("Magna Cum Laude")
9 if gpa >= 3.5:
10     print("Cum Laude")
11 if gpa >= 2.65:
12     print("Graduate without Honors")
13 if gpa < 2.65:
14     print("Did not graduate")
```

```
1 # Output0708
2
3 print()
4 gpa = 3.88
5 if gpa >= 3.9:
6     print("Summa Cum Laude")
7 elif gpa >= 3.75:
8     print("Magna Cum Laude")
9 elif gpa >= 3.5:
10    print("Cum Laude")
11 elif gpa >= 2.65:
12    print("Graduate without Honors")
13 else:
14    print("Did not graduate")
```

```
1  # Output0709
2
3  print()
4  sat = 1100
5  if sat >= 1200:
6      print("Admitted: Yes")
7  else:
8      print("Admitted: No")
9  print()
10 income = 19000
11 if income < 20000:
12     print("Financial Aid: Yes")
13 else:
14     print("Financial Aid: No")
```

```
1 # Output0710
2
3 print()
4 sat = 1100
5 if sat >= 1200:
6     print("Admitted: Yes")
7     print()
8     income = 19000
9     if income < 20000:
10         print("Financial Aid: Yes")
11     else:
12         print("Financial Aid: No")
13 else:
14     print("Admitted: No")
```

```
1 # Output0711
2
3 print()
4 print(9)
5 print(98)
6 print(987)
7 print(9876)
8
9
10
```

```
1 # Output0712
2
3 print()
4 print("{:04}".format(9))
5 print("{:04}".format(98))
6 print("{:04}".format(987))
7 print("{:04}".format(9876))
8
9
10
```

```
1 # Output0713
2
3 print()
4 print("{:4}".format(9))
5 print("{:4}".format(98))
6 print("{:4}".format(987))
7 print("{:4}".format(9876))
8
9
10
```



```
1 # Output0714
2
3 print()
4 print("{:5,}".format(9))
5 print("{:5,}".format(98))
6 print("{:5,}".format(987))
7 print("{:5,}".format(9876))
8 print("{:5,}".format(98765))
9
10
```

```
1 # Output0715
2
3 print()
4 print("{:6,}".format(9))
5 print("{:6,}".format(98))
6 print("{:6,}".format(987))
7 print("{:6,}".format(9876))
8 print("{:6,}".format(98765))
9
10
```

```
1  # Output0716
2
3  print()
4  print("{:,}".format(9))
5  print("{:,}".format(98))
6  print("{:,}".format(987))
7  print("{:,}".format(9876))
8  print("{:,}".format(98765))
9
10
```

```
1 # Output0717
2
3 print("{:7.3f}".format(8))
4 print("{:7.3f}".format(23.4))
5 print("{:7.3f}".format(56.78))
6 print("{:7.3f}".format(1234.5678))
7
8
9
10
```

```
1  # Output0718
2
3  a = 7
4  b = 34.9
5  c = 77.77
6  d = 56.1234
7  e = 234.56789
8
9  print()
10 print("{:.3f}".format(a))
11 print("{:.3f}".format(b))
12 print("{:.3f}".format(c))
13 print("{:.3f}".format(d))
14 print("{:.3f}".format(e))
```

```
1  # Output0719
2
3  a = 7
4  b = 34.9
5  c = 77.77
6  d = 56.1234
7  e = 234.56789
8
9  print()
10 print("${:.2f}".format(a))
11 print("${:.2f}".format(b))
12 print("${:.2f}".format(c))
13 print("${:.2f}".format(d))
14 print("${:.2f}".format(e))
```

```
1 # Output0720
2
3 print("${:13,.2f}".format(5000))
4 print("${:13,.2f}".format(94000.2))
5 print("${:13,.2f}".format(8888888.88))
6 print("${:13,.2f}".format(12121212.567))
7 print("${:13,.2f}".format(987987.2345))
8
9
10
```