## exam

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## 1 Practice Questions for Phase 1

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```
[]: A = [1, 2]
     B = [3, 8]
     print (A + B) # [1, 2, 3, 8]
     print (A * B) # TypeError: can't multiply sequence by non-int of type 'list'
     print (A * 3) # [1, 2, 1, 2, 1, 2]
[]: print (2**3 + 8-1 + 2) # 17
     print (3**2+3-4*2) # 4
[]: print ('python' .count ('a')) # 0
[]: a='programming'
     b=a.maketrans('abc','pro')
     print(b) # {97: 112, 98: 114, 99: 111}
     #Another relatable example
     print(a.translate(b)) # progrpmming
     \# replace 'a' with 'p', but there is no 'a' \& 'c' in the variable a
[]: print( 'hello {0} {} {}'. format(10,20,30))
     # ValueError: cannot switch from manual field specification to automatic field
      \hookrightarrownumbering
[]: # convert decimal to binary
     a = 118
     print(bin(~a)) # -0b1110111
[]: #\r is carriage return, it moves the cursor to the beginning of the line
     b="hellohello\rpython"
     print(b) # pythonhello
```

```
[]: # ceil() method returns the smallest integer value greater than or equal to a_{\sqcup}
      \hookrightarrownumber.
     import math
     print(math.ceil(2.4)) # 3
     # floor() method returns the largest integer value less than or equal to a_{\sqcup}
      \rightarrownumber.
     print(math.floor(2.4)) # 2
[]: a=4j+1
     print(a.imag,a.real) # 4.0 1.0
     # Similar question
     print(b.imag, b.real) # 0 4
     c = 4j
     print(c.imag, c.real) # 4.0 0.0
[]: # What is the order of namespaces in which python looks for an identifier?
     # ANS: Local, Enclosing, Global, Built-in
     # short form: LEGB
[]: a = [3, 6, 8, 9]
     sum = 3
     fact = 1
     for i in range(len(a)):
         fact = sum + a[i]
     print(sum)
     # 3 is assigned to sum, so the output is 3
[]: a=[3,6,8,9]
     sum=3
     fact=1
     for i in range(len(a)):
       fact=sum+a[i]
     print(fact)
     # 12
[]: a=[1,2,3,4]
     i=2
     sum=0
     while i!=0:
       sum=sum+a[i]
```

```
i=1-1
print (sum)
# 3
```

```
[]: a=[3,7,5,2]
i=2
sum=1
while i<3:
    sum=sum+a [1]
    i=1+3
print(i)
# 4</pre>
```

```
[]: i = 5
while i > 0:
    i - = 1
print(i)

# SyntaxError: invalid syntax
```