Solutions Mockup Exam 2025 Part 1

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June 7, 2025

[4]:
```python
#Task 1.1
var1 = [42,28,18]
var2 = 42
var3 = {'hello':'world'}
var4 = "Dear"
print(type(var1),type(var2),type(var3),type(var4))
```

```
<class 'list'> <class 'int'> <class 'dict'> <class 'str'>
```

[5]:
```python
#Task 1.2
var1 = "about"
var2 = "you"
var3 = "jokes"
print("Hello, I am writing an {}.".format("exam"))
print("What {}?".format(var2))
print(f"Terrible {var3}?")
print("{var3} are fun.")
```

```
Hello, I am writing an exam.
What you?
Terrible jokes?
{var3} are fun.
```

[6]:
```python
# Task 1.3
mylist = [elem for elem in range(3)]
print(mylist)
```

```
[0, 1, 2]
```

[7]:
```python
# Task 1.4
variable = {key:value for (key,value) in enumerate(range(1,4))}
print(variable)
```

```
{0: 1, 1: 2, 2: 3}
```

[8]:
```python
# Task 2.1
var = 3
def adder(value_one, value_two=2):
    result = value_one + value_two
    return result
```

```
res = adder(var)
print(var)
print(res)
print(adder(5,7))
print(adder(5))
```

```
3
5
12
7
```

[12]:
```
# Task 2.2
var = 5
def g():
    var = 2
    print(var)
def h():
    global var
    var = 1 + var

g()
print(var)
h()
print(var)
```

```
2
5
6
```

[13]:
```
# Task 2.3
var = 1
class MyClass():
    var = 2
    def __init__(self):
        self.var = 3
obj = MyClass()
print(var)
print(obj.var)
print(MyClass.var)
print(var)
```

```
1
3
2
1
```

[14]:
```
# Task 2.4
var = 5
def substracter(var, value_two = 8):
```

```
    if value_two > var:
        var = 99
        return 0
    else:
        return var - value_two
res = substracter(var)

print(res)
print(substracter(5,7))
print(substracter(5))
print(var)
```

```
0
0
0
5
```

[15]:
```
# Task 3.1
mylist = [1,2,3]
for elem in mylist:
    print(elem)
```

```
1
2
3
```

[16]:
```
# Task 3.2
limit = 0
while limit < 3:
    print(limit)
    limit = limit + 2
```

```
0
2
```

[17]:
```
# Task 3.3
mylist = [1,2,3,4]
for elem in mylist:
    if elem < 2:
        print("99")
    elif elem < 4:
        print("a")
    else:
        print(elem)
```

```
99
a
a
4
```

[18]:
```
# Task 3.4
a = 15
b = 10
c = 5
if (b > a) or (b < c):
    b = b+1
print(b)
```

```
10
```

[19]:
```
#Task 4.1
a = [1,2,3]
b = a
b[0] = 0
print(a)
```

```
[0, 2, 3]
```

[20]:
```
#Task 4.2
a = [1,2,3]
b = a.copy()
b[0] = 0
print(a)
```

```
[1, 2, 3]
```

[21]:
```
#Task 4.3
def multiplier_func(a):
    return lambda x: x * a
m = multiplier_func(3)
print(m(2))
```

```
6
```