


▼ Week 1 Homework

Please write Python programs and find solutions to the following problems:

1. Calculate the first 10 powers of 2: $2^1, 2^2, \dots, 2^{10}$.

```
1 import math
2
3 def powers(n):
4     for i in range(1, n + 1):
5         print(f'2^{i} = {math.pow(2, i)}')
6
7 powers(10)
```



```
2^1 = 2.0
2^2 = 4.0
2^3 = 8.0
2^4 = 16.0
2^5 = 32.0
2^6 = 64.0
2^7 = 128.0
2^8 = 256.0
2^9 = 512.0
2^10 = 1024.0
```

2. Extract the names from the following string:

```
1 str1 = " Alice, Bob, Charlie, David "
2 str1 = str1.strip()
3 lst1 = str1.split(',')
4 for i in range(0, len(lst1)):
5     print(lst1[i].split())

['Alice']
['Bob']
['Charlie']
['David']
```

Please convert the completed notebook to a PDF file and submit it to the assignment section on Blackboard by **Wednesday, February 09 at 11:59pm**.