

# 201645084\_3\_Q\_노영훈

1번, 2-(1),(2),(3) 문제.

jupyter 9Week\_AI\_Math\_Assignment Last Checkpoint: 8분 전 (unsaved changes) Logout

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1.  $10! \cdot (2^{100+7}) + 1 / (e + \pi + 5)$ 의 6자리 근삿값을 구하여라

```
In [7]: ((factorial(10)*(2^100+7)+1)/(e+pi+5).simplify()).n(digits=6)
```

```
Out [7]: 4.23582e35
```

2.  $y = (x = 1)\cos(x+a)$ 에 대하여

```
In [18]: #(1) a = -x
a = -x
y = cos(x+a)
print(y)
```

```
1
```

```
In [17]: #(2) x = pi/2, a = pi/3
x = pi/2
a = pi/3
y = cos(x+a)
print(y)
```

```
-1/2*sqrt(3)
```

```
In [22]: #(3) x = 0.5, a = 2.3
x = 0.5
a = 2.3
y = cos(x+a)
print(y)
```

```
-0.942222340668658
```

3번 문제.

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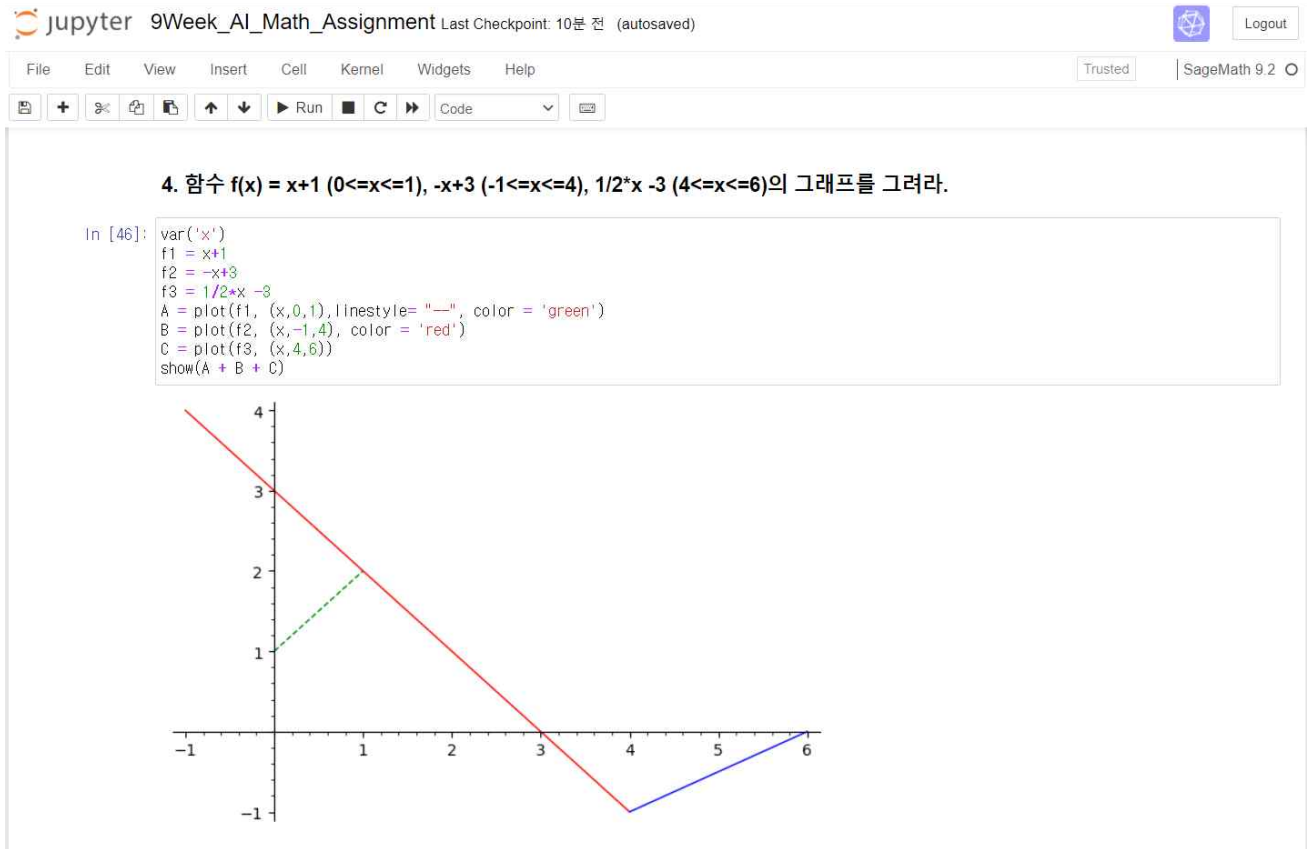
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3.  $y = 2\cos 3x$ 와  $y = 2 - \sqrt{x}$ 의 그래프를 한 평면에 선과 색으로 구별하여 그리고 각각 함수식을 적어라. (단,  $-5 \leq x \leq 5, -3 \leq y \leq 3$ )

```
In [41]: var('x')
y1 = 2*cos(3*x)
y2 = 2 - sqrt(x)
A = plot(y1, linestyle="--", color='green') # graph the first function
B = plot(y2) # graph the second function
C = text("y = 2*cos(3*x)", (-0.8, 1), color='green', fontsize=15) # add the text on given position
D = text("2 - sqrt(x)", (1, 1.3), fontsize=15) # and set the font of the text
show(A + B + C + D)
```

verbose 0 (3835: plot.py, generate\_plot\_points) WARNING: When plotting, failed to evaluate function at 100 points.  
verbose 0 (3835: plot.py, generate\_plot\_points) Last error message: 'math domain error'

#### 4번 문제.



#### 5번 문제.

