

NC_Lab1

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In [ ]: import math as m

e = m.exp(0.5)

x = s.Symbol('x')
answer_true = s.diff(7*e**x).evalf(subs={x:2}) # with respect to x
print("True answer: ",answer_true)
```

True answer: 9.51398639960666

```
In [ ]: #x = 2
h = 0.3
def fx (x):
    e = m.exp(0.5)
    return 7*e**x
x1 = fx(2.3)
x2 = fx(2)
#print(x1)
answer_astimated = ((x1) -x2)/h
print("Answer Astimated: ",answer_astimated)

print("ERROR: ",answer_true - answer_astimated)
```

Answer Astimated: 10.264591895383516
ERROR: -0.750605495776858