첨단과학의세계 과제1

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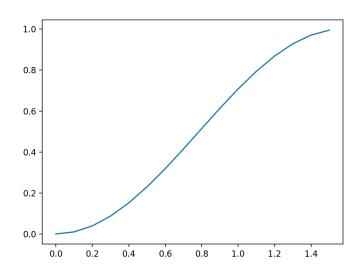
1. Mathematical Methods in the Physical Sciences 3ed (348p)

```
import matplotlib.pyplot as plt
import numpy as np

x = []
y = []

for t in np.arange(0,1.57,0.1):
    x.append(t)
    y.append(np.sin(t) * np.sin(t))

plt.plot(x,y)
plt.show()
```



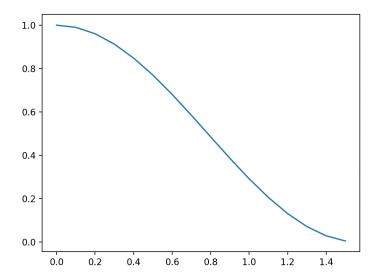
2. Mathematical Methods in the Physical Sciences 3ed (348p)

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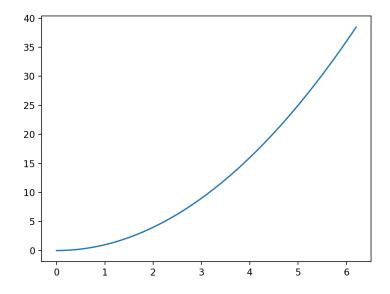
plt.plot(x,y)
plt.show()|
```



3. Mathematical Methods in the Physical Sciences 3ed (361p)

```
import matplotlib.pyplot as plt
import numpy as np
```

$$x = []$$
$$y = []$$



```
4. Mathematical Methods in the Physical Sciences 3ed (361p)
import matplotlib.pyplot as plt
import numpy as np
x = []
y = []
for t in np.arange(-3.14,3.14,0.1):
     x.append(t)
     y.append(t * t)
plt.plot(x,y)
plt.show()
 6
 2
    -'3
          -2
               -1
5. Mathematical Methods in the Physical Sciences 3ed (364p)
import matplotlib.pyplot as plt
import numpy as np
x = []
y = []
for t in np.arange(-10,10,0.1):
     x.append(t)
     y.append(t)
plt.plot(x,y)
plt.show()
 10.0
 7.5
 5.0
 2.5
 0.0
-2.5
-5.0
-7.5
-10.0
```

-10.0 -7.5 -5.0 -2.5

0.0

2.5

10.0

```
6. Mathematical Methods in the Physical Sciences 3ed (636p)
import matplotlib.pyplot as plt
import numpy as np
x = []
y = []
for t in np.arange(0,10,0.1):
     x.append(t)
     y.append(np.sin(2 * t))
plt.plot(x,y)
plt.show()
 1.00
 0.75
 0.50
 0.25
 0.00
 -0.25
 -0.50
 -0.75
 -1.00
7. Mathematical Methods in the Physical Sciences 3ed (12p)
import matplotlib.pyplot as plt
import numpy as np
x = []
y = []
for t in np.arange(1,100,0.1):
     x.append(t)
     y.append(1/t)
plt.plot(x,y)
plt.show()
 1.0
 0.8
 0.6
 0.4
 0.2
 0.0
```

```
8. Mathematical Methods in the Physical Sciences 3ed (31p)
```

```
import matplotlib.pyplot as plt
import numpy as np

x = []
y = []

for t in np.arange(-2,1.5,0.1):
    x.append(t)
    y.append(np.sin(t)/t)|

plt.plot(x,y)
plt.show()
```

