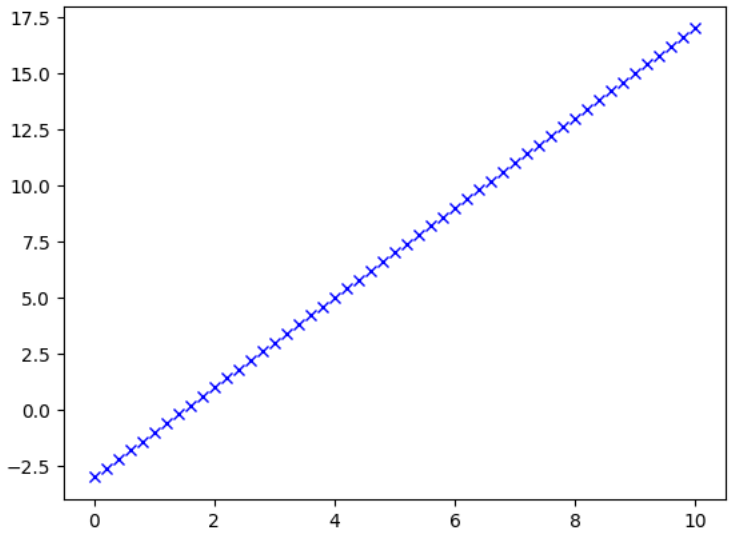
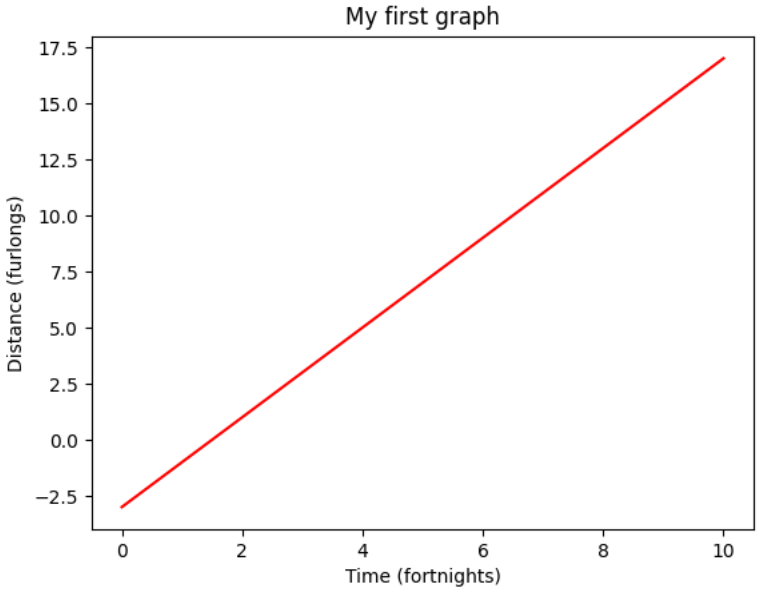
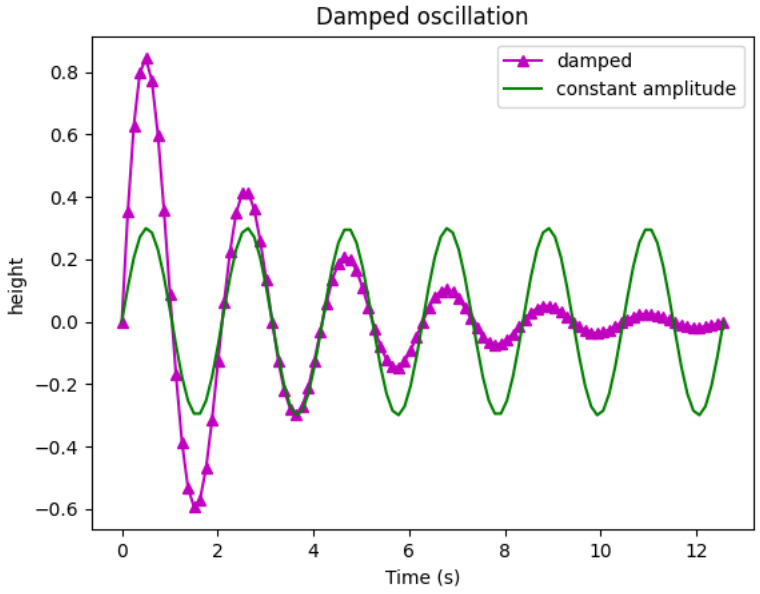
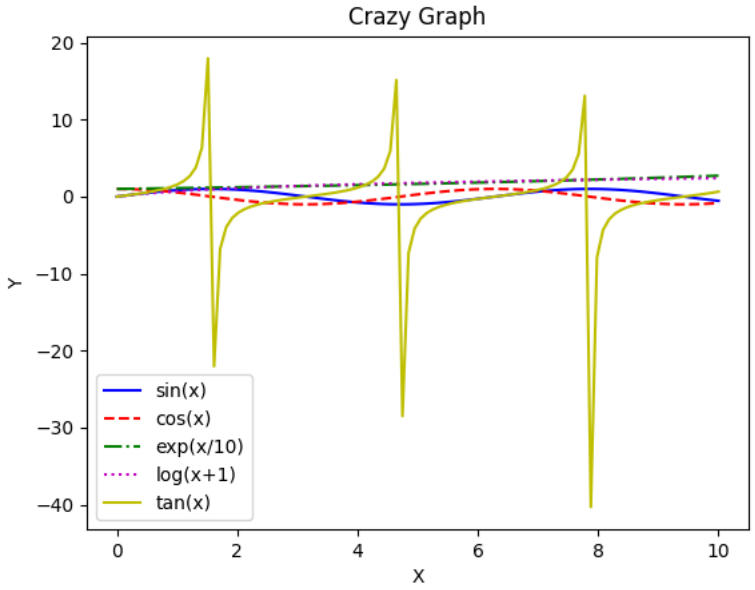

17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
−2.5
0
2
4
6
8
10


My first graph
Distance (furlongs)
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
−2.5
0
2
4
6
8
10
Time (fortnights)




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

x = np.linspace(0, 10, 51)
y = 2 * x - 3

plt.plot(x, y, 'bx')
plt.show()

plt.plot(x, y, 'r')
plt.xlabel('Time (fortnights)')
plt.ylabel('Distance (furlongs)')
plt.title('My first graph')
plt.show()

time = np.linspace(0, 4 * np.pi, 101)
height = np.exp(- time / 3.0) * np.sin(time * 3)

plt.plot(time, height, 'm-^')
plt.plot(time, 0.3 * np.sin(time * 3), 'g-')

plt.legend(['damped', 'constant amplitude'])
plt.xlabel('Time (s)')
plt.ylabel('height')
plt.title('Damped oscillation')

plt.show()
```




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

x = np.linspace(0, 10, 100)
y1 = np.sin(x)
y2 = np.cos(x)
y3 = np.exp(x / 10)
y4 = np.log(x + 1)
y5 = np.tan(x)

fig, ax = plt.subplots()

ax.plot(x, y1, linestyle='-', color='b', label='sin(x)')
ax.plot(x, y2, linestyle='--', color='r', label='cos(x)')
ax.plot(x, y3, linestyle='-.', color='g', label='exp(x/10)')
ax.plot(x, y4, linestyle=':', color='m', label='log(x+1)')
ax.plot(x, y5, linestyle='-', color='y', label='tan(x)')

ax.set_title('Crazy Graph')
ax.set_xlabel('X')
ax.set_ylabel('Y')

ax.legend()

plt.show()
```