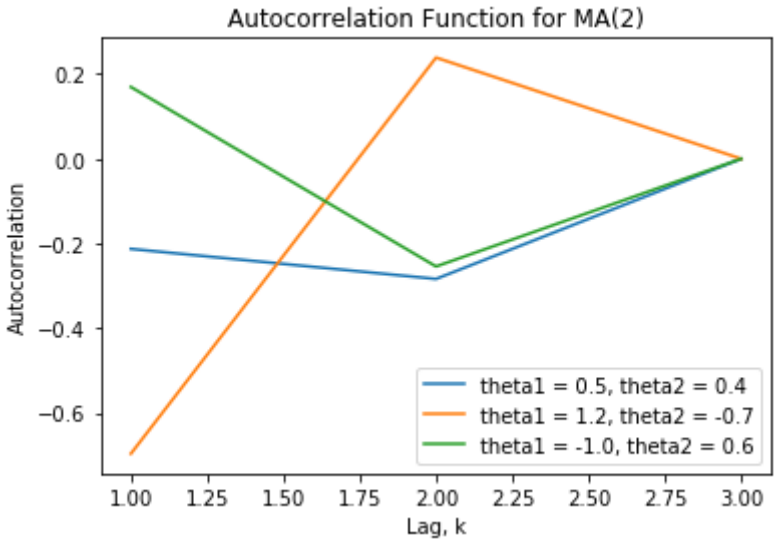
In [1]:
```
import matplotlib.pyplot as plt
import numpy as np
```

In [15]:
```
theta1 = np.array([0.5, 1.2, -1])
theta2 = np.array([0.4, -0.7, 0.6])

rho = lambda t1, t2: np.array([t1 * (t2 - 1) / (1 + t1**2 + t2**2), -t2
/ (1 + t1**2 + t2**2), 0])

for i in range(len(theta1)):
    plt.plot(np.array([1, 2, 3]), rho(theta1[i], theta2[i]))
plt.legend(['theta1 = ' + str(theta1[0]) + ', theta2 = ' + str(theta2[0
]),
            'theta1 = ' + str(theta1[1]) + ', theta2 = ' + str(theta2[1]),
            'theta1 = ' + str(theta1[2]) + ', theta2 = ' + str(theta2[2
])])
plt.title('Autocorrelation Function for MA(2)')
plt.ylabel('Autocorrelation')
plt.xlabel('Lag, k')
plt.show()
```



In [ ]:

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