```
[39]: plt.plot(m_values, avg_empirical_error, label='Average Empirical Error')
plt.plot(m_values, avg_bias_squared, label='Average Bias-Squared')
plt.plot(m_values, avg_variance, label='Average Variance')
plt.plot(m_values, np.array(avg_bias_squared) + np.array(avg_variance), label='Bias-Squared + Variance')

plt.xlabel('m')
plt.ylabel('Error')
plt.title('Bias-Variance Tradeoff')
plt.legend()
plt.grid(True)
```

