

```
1: #!/usr/bin/python
2: import numpy as np
3: import pylab
4:
5: def part_a():
6:     piano = np.loadtxt("piano.txt")
7:     trumpet = np.loadtxt("trumpet.txt")
8:     fft_piano = np.fft.rfft(piano)
9:     fft_trumpet = np.fft.rfft(trumpet)
10:    pylab.plot(fft_piano[:10000])
11:    pylab.plot(fft_trumpet[:10000])
12:    pylab.show()
13:
14: def part_b():
15:     pass
16:
17: def main():
18:     part_a()
19:     part_b()
20:
21: if __name__ == "__main__":
22:     main()
```