Set #1

Due Date Friday September 9, 2016

Make note of the following:

- Due to the labor day holiday, we will begin discussion of these problems in class until Monday August 29; no class on Monday September 5
- Write only on one side of the paper
- Please try if possible to start each new problem on a clean sheet of paper
- Use engineering paper if you like

Problems

1. Z&T 6.5.
2. Z&T 6.10.
4. Z&T 6.34.
5. Z&T 6.38. Also compare with the $Q$-function approximation given by Example 3.4 of the notes. In Python import `scipy.special` to get access to `erfc()` and other special functions. 6th 5.38.

```python
In [10]: import scipy.special as special
In [10]: special.erfc(3.5)
Out[11]: 7.4309837234141288e-07
```

In you plot make the y-axis of probability or use semilogy in Python and limit the probability to $[10^{-6}, 1]$, i.e. `ylim([-6, 0])` or `ylim([1e-6, 1])` respectively.

6. Z&T 6.44.