Normal Distribution Worksheet

This worksheet is to help you practice using the Normal table. Even if you know how to find these using your calculator, make sure you know what it is doing, and how to use the table in case you don't have a calculator.

1. Calculate the following areas for the standard normal distribution:

   a) less than -2.92
   b) more than -1.54
   c) between -2.92 and -1.31
   d) between -2.92 and 0
   e) between -2.92 and 1.22
   f) more than 1.22
   g) less than 2.99
   h) between 1.22 and 1.37

2. Suppose IQs of people are Normally distributed with mean=100, SD=15.

   a) What proportion of people have IQ more than 120? (or, what is the probability that a randomly chosen person has IQ more than 120?)

   b) What proportion of people have IQ between 100 and 120?
   c) What proportion of people have IQ between 80 and 120?
   d) What proportion of people have IQ between 94 and 105?
   e) What proportion of people have IQ between 95 and 125?
   f) What is that IQ such that 60% of people have IQ above this value?

3. The proportion of traffic fatalities for each U.S. state resulting from drivers with high alcohol blood levels in 1982 was approximately normally distributed, with mean 0.569 and SD 0.068.

   a) What proportion of states would you expect to have more than 65% of their traffic fatalities from drunk driving?
   b) What proportion of deaths due to drunk driving would you expect to be at the 25th percentile of this distribution?