

## Math 122

### Introduction to Statistics and Probability

#### Nonstandard Normal Practice

Round to four decimal places as necessary.



1. What percentage of college age females are shorter than five feet tall?
2. What is the probability that a random college age male weighs between 140lb and 150lb?
3. What percentage of newborn babies in the USA weigh more than 10lb?
4. What percentage of people have an IQ above 130?
5. What percentage of people have an IQ between 100 and 120?
6. A college in Lincoln is placing marker poles at the corners of sidewalks as guides for snow plows. How tall should the markers be so that they will be visible throughout 90% of all winters?

7. Find  $P_{99}$  for infant birth weights.
8. Find  $Q_{25}$  for heights of college age females.
9. Find the height which separates the tallest 1% of college age women from the shortest 99%.
10. Suppose that we declare the lightest 2% and heaviest 2% of babies to be at risk. What are the cut-off weights for at risk babies?
11. Find two IQs which separate the middle 95% of all scores from the highest and lowest.