The heights of newborn zebras are normally distributed with a mean of 33 inches and a standard deviation of 3 in.

(a) Give the population Ω, the measurement $X$, and the proper notation for the distribution of $X$ in this case.

(b) Draw and shade the regions below, then find the percentage of newborn zebra heights that measure

(i) at least 31.4 in.  
(ii) at most 34.1 in.

(iii) from 30 to 34 inches

(c) What height $x$ is such that 12.5% of all newborn zebra heights are above $x$?

(d) Find the bounds $x$ and $y$, symmetric about $\mu$, in between which are 72% of newborn zebra heights.