1. The medical records of infants at a hospital show that the infants birth weight are normally distributed with a mean of 8.3 pounds and a standard deviation of 1.4 pounds. Find the probability that an infant selected at random from among those delivered at the hospital

   (a) weighed less than 9 pounds at birth.

   normalcdf($-1e99$, 9, 8.3, 1.4) $= 0.6915$

   (b) weighed exactly 8.5 pounds at birth.

   zero, since the random variable is continuous.

   (c) weighed between 5 and 8.5 pounds at birth.

   normalcdf(5, 8.5, 8.3, 1.4) $= 0.5476$

2. Let X be a normally distributed random variable with mean of 50 and standard deviation of 8.

   (a) Find the value of A such that $P(X < A) = .3$

   A = invnorm(.3, 50, 8) $= 45.8048$

   (b) Find the value of B such that $P(X > B) = .4$

   B = invnorm($1 - .4$, 50, 8) $= 52.0268$