1) The 2008 paper entitled “Estimating Waste Transfer Station Delays Using GPS” found mean processing time for a garbage truck at a waste management facility was 13.0 minutes with a standard deviation of 3.9 minutes. Further, the authors found the processing times were approximately normal.

a) What percentage of trucks take more than 20.8 minutes to complete processing at a waste management facility?

b) What percentage of trucks take more than 5.2 minutes but less than 16.9 minutes to complete processing at a waste management facility?

2) Use the standard Normal distribution (Table A) to determine the proportion of observations that satisfy each condition listed below. Also sketch a standard normal distribution curve for each case and shade in the area of interest.

a) $z < -2.2$

b) $z > 1.4$

c) $-0.8 < z < 1.65$