The composite scores of students on the ACT college entrance examination in a recent year had a Normal distribution with mean $\mu = 20.4$ and standard deviation $\sigma = 5.8$.

1. What is the probability that a randomly chosen student scored 24 or higher on the ACT?

2. What are the mean and standard deviation of the average ACT score $\bar{x}$ for an SRS of 30 students?

3. What is the probability that the average ACT score of an SRS of 30 students is 24 or higher?

4. Would your answers to 1, 2, or 3 be affected if the distribution of ACT scores in the population were distinctly non-Normal?