

Content Standards:

-To explore when the use of the normal distribution is an appropriate model for the binomial distribution and apply it to calculate probabilities for larger sample sizes.

Process Standards:

- Students will determine what information is relevant for a given situation.
- Students will make informed decisions based on the information they are provided with.

Task:

Answer the following question using the Normal Approximation. Show each of the 5 steps we have discussed in class.

Public health statistics indicate that 26.4% of American adults smoke cigarettes. In a randomly selected group of 50 people, what is the probability that the majority of them smoke?

Why was it appropriate to use the Normal Approximation instead of the Binomial Distribution to answer this question?