

# 11-9 Standardized Test Prep

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## Binomial Distributions

### Multiple Choice

For Exercises 1–5, choose the correct letter.

- The probability that a newborn baby at a certain hospital is male is 50%. What is the probability that exactly 2 of 3 babies born in the hospital on any day are male?  
 A 37.5%       B 50%       C 66.7%       D 75%
- The probability that a newborn baby at the hospital is female is 50%. What is the probability that at least 2 babies of 3 children born on a certain day are female?  
 F 33.3%       G 37.5%       H 50%       I 66.7%
- What is the fifth term of the expansion of  $(2x - y)^8$ ?  
 A  $-1792x^5y^3$        B  $-448x^3y^5$        C  $256x^4y^4$        D  $1120x^4y^4$
- A poll shows that 30% of voters favor an earlier curfew. Find the probability that all of five voters chosen at random favor an earlier curfew.  
 F 0.24%       G 1.5%       H 4.1%       I 16.7%
- The probability that a machine part is defective is 10%. Find the probability that no more than 2 out of 12 parts tested are defective.  
 A 28%       B 66%       C 89%       D 98%

### Short Response

- A scientist runs an experiment 4 times. Each run has a 65% chance of success. Calculate and graph the distribution of binomial probabilities for the experiment.