Binomial Distributions

11.6

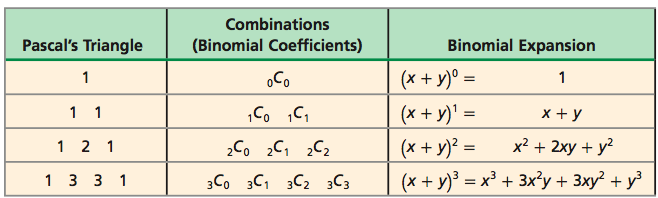
Warm-up

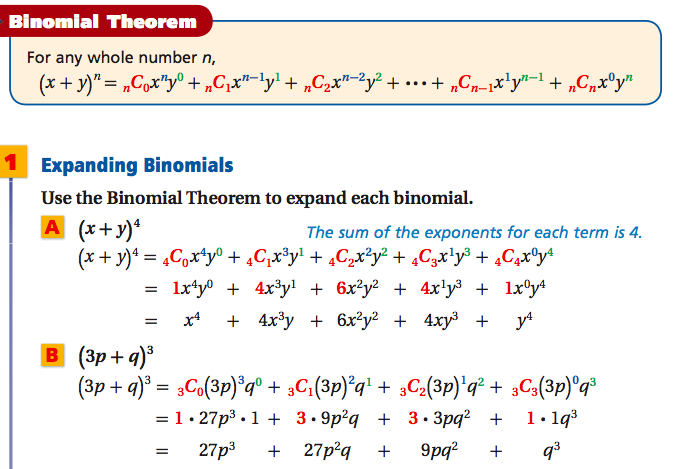
Write Pascal’s Triangle to the 7th degree.

1

1 1

1 2 1

The Binomial Theorem is the expansion of Pascal’s Triangle.  




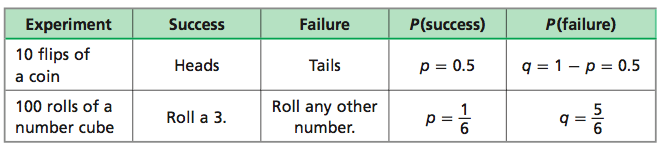
We Try:

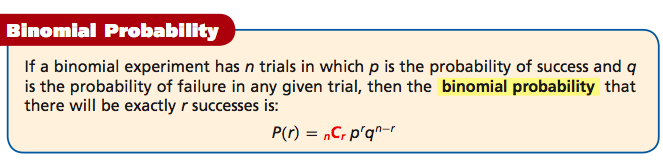
Expand

You Try:

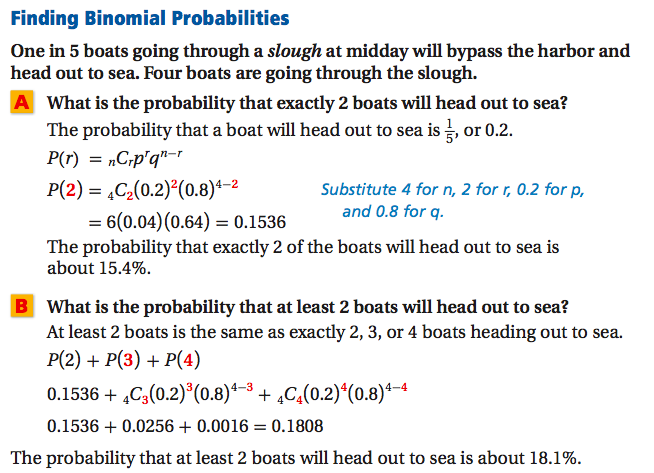
Expand

A ***Binomial Experiment*** consists of *n* independent trials whose outcomes are either success or failures; the probability of success *p* is the same for each trial, and the probability of *q* is the same for each trial. Because there are only two outcomes, *p+q=1*.









We Try:

Students are assigned randomly to 1 of 3 guidance counselors. What is the probability that Counselor Jen will get two of the next 3 students assigned?

You Try:

Michael takes a multiple-choice quiz that has 5 questions, with 4 answer choices for each question. What is the probability that she will get at least 2 answers correct by guessing?