

# Chapter 13 Review Questions



Studying for a chapter examination is a personal process, one which nobody else can do for you. Simply take the time to review what you have done. Here are the new terms in Chapter 13.

Addition property of probability [13.4]	Empirical probability [13.1]	Mutually exclusive [13.1]
Bernoulli trial [13.5]	Equally likely outcomes [13.1]	Odds against [13.3]
Binomial distribution theorem [13.5]	Event [13.1]	Odds in favor [13.3]
Binomial experiment [13.5]	Expectation [13.2]	Probabilistic model [13.1]
Binomial random variable [13.5]	Expected value [13.2]	Probability [13.1]
Birthday problem [13.4]	Experiment [13.1]	Property of complements [13.3]
Complementary probabilities [13.3]	Fair game [13.2]	Random variable [13.5]
Conditional probability [13.3]	Impossible event [13.1]	Relative frequency [13.1]
Dependent events [13.4]	Independent events [13.4]	Sample space [13.1]
Dice [13.1]	Law of large numbers [13.1]	Simple event [13.1]
Die [13.1]	Keno [13.4]	Subjective probability [13.1]
	Mathematical expectation [13.2]	Theoretical probability [13.1]
	Multiplication property of probability [13.4]	With replacement [13.4]
		Without replacement [13.4]

If you can describe the term, read on to the next one; if you cannot, then look it up in the text (the section number is shown in brackets). Next, study the types of problems listed at the end of Chapter 13.

## TYPES OF PROBLEMS

- Find empirical probabilities. [13.1]
- Find probabilities by looking at the sample space. [13.1]
- Decide which of two events is more probable. [13.1]
- Find the expectation with a cost of playing. [13.2]
- Find the mathematical expectation for a simple event. [13.2]
- Find the mathematical expectation for a compound event. [13.2]
- Make decisions based on mathematical expectation. [13.2]
- Find expectations for roulette. [13.2]
- Know the procedure for using tree diagrams to find probabilities. [13.3]
- Find the probability of a complement. [13.3]
- Find the odds, given the probability. [13.3]
- Find the probability, given the odds. [13.3]
- Find conditional probabilities. [13.3]
- Find the probabilities of unions, intersections, and complements. [13.4]
- Find slot machine probabilities. [13.4]
- Calculate Keno probabilities. [13.4]
- Use tree diagrams to find probabilities [13.4]
- Find binomial probabilities. [13.5]
- Answer questions involving applied probabilities. [13.1-13.5]

Once again, see if you can verbalize (to yourself) how to do each of the listed types of problems.

Work all of Chapter 13 Review Questions (whether they are assigned or not). Work through all of the problems before looking at the answers, and *then* correct each of the problems. The entire solution is shown in the answer section at the back of the text. If you worked the problem correctly, move on to the next problem, but if you did not work it correctly (or you did not know what to do), look back in the chapter to study the procedure, or ask your instructor.

Finally, go back over the homework problems you have been assigned. If you worked a problem correctly, move on the next problem, but if you missed it on your homework, then you should look back in the book or talk to your instructor about how to work the problem.

If you follow these steps, you should be successful with your review of this chapter.