15. Flirting Survey In a Microsoft Instant Messaging survey, respondents were asked to choose the most fun way to flirt, and it found that $P(D) = 0.550$, where D is directly in person. If someone is randomly selected, what does $P(\overline{D})$ represent, and what is its value?

16. Sobriety Checkpoint When the author observed a sobriety checkpoint conducted by the Dutchess County Sheriff Department, he saw that 676 drivers were screened and 6 were arrested for driving while intoxicated. Based on those results, we can estimate that $P(I) = 0.00888$, where I denotes the event of screening a driver and getting someone who is intoxicated. What does $P(\overline{I})$ denote, and what is its value?

In Exercises 17–20, use the drug screening data given in Table 4-1, which is included with the Chapter Problem.

17. Drug Screening If one of the test subjects is randomly selected, find the probability that the subject had a positive test result or a negative test result.

18. Drug Screening If one of the test subjects is randomly selected, find the probability that the subject had a positive test result or does not use drugs.

19. Drug Screening If one of the subjects is randomly selected, find the probability that the subject had a negative test result or does not use drugs.

20. Drug Screening If one of the subjects is randomly selected, find the probability that the subject had a negative test result or uses drugs.

Dosage Calculations. ***In Exercises 21–26, use the data in the accompanying table, which lists the numbers of correct and wrong dosage amounts calculated by physicians. In a research experiment, one group of physicians was given bottles of epinephrine labeled with a* concentration *of "1 milligram in 1 milliliter solution," and another group of physicians was given bottles labeled with a* ratio *of "1 milliliter of a 1:1000 solution." The two labels describe the exact same amount, and the physicians were instructed to administer 0.12 milligrams of epinephrine. The results were reported in*** **The New York Times.**

	Correct Dosage Calculation	Wrong Dosage Calculation
Concentration Label ("1 milligram in 1 milliliter solution")	11	3
Ratio Label ("1 milliliter of a 1:1000 solution")	2	12

21. Correct Dosage If one of the physicians is randomly selected, what is the probability of getting one who calculated the dose correctly? Is that probability as high as it should be?

22. Wrong Dosage If one of the physicians is randomly selected, what is the probability of getting one who calculated the dose incorrectly? Is that probability as low as it should be?

23. Correct or Concentration If one of the physicians is randomly selected, find the probability of getting one who made a correct dosage calculation or was given the bottle with a concentration label.

24. Wrong Dosage or Ratio If one of the physicians is randomly selected, find the probability of getting one who made a wrong dosage calculation or was given the bottle with a ratio label.

25. Which Group Did Better?

a. For the physicians given the bottles labeled with a concentration, find the percentage of correct dosage calculations, then express it as a probability.