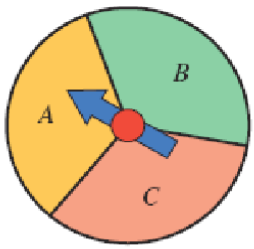
1. –/1.5 points SmithNM12 13.1.004.CMI. My Notes Ask Your Teacher

For the spinner below, assume that the pointer can never lie on a border line. Find the following probabilities. (Enter the probabilities as fractions.)



(a) $P(A)$

(b) $P(B)$

(c) $P(C)$

Need Help? Read It Watch It Chat About It

2. –/1.5 points SmithNM12 13.1.009. My Notes Ask Your Teacher

Give the probability in decimal form (correct to two decimal places). A calculator may be helpful.

Last semester, a certain professor gave 45 As out of 178 grades. If one of the professor's students from last semester were selected randomly, what is the probability that student received an A? (Assume that each student receives one grade.)

Need Help? Read It Chat About It

3. –/1.5 points SmithNM12 13.1.016. My Notes Ask Your Teacher

Poker is a common game in which players are dealt five cards from a deck of cards. It can be shown that there are 2,598,960 different possible poker hands. The winning hands (from highest to lowest) are shown in the table below. Find the requested probability. Use a calculator. (Show your answer to nine decimal places.)

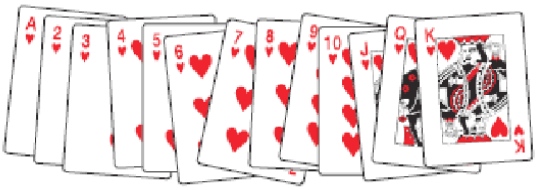
P(full house)

Poker Hands

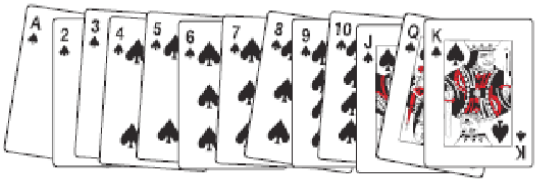
Need Help? Read It Chat About It

4. –/1.5 points SmithNM12 13.1.023. My Notes Ask Your Teacher

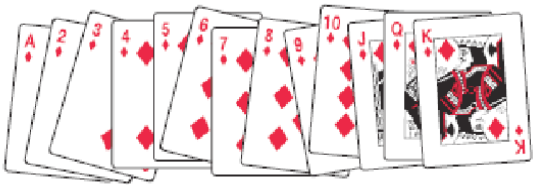
A single card is selected from an ordinary deck of cards. The sample space is shown in the figure below. Find the probabilities. (Enter the probabilities as fractions.)



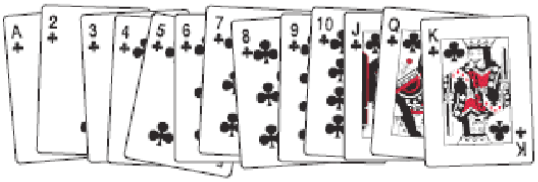
Hearts (red cards)



Spades (black cards)



Diamonds (red cards)



Clubs (black cards)

(a) P(eight of spades)

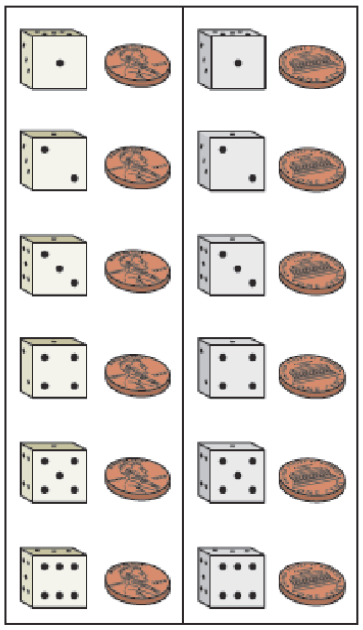
(b) P(eight)

(c) P(spade)

Need Help? Read It Chat About It

5. **–/1.5 points** SmithNM12 13.1.027. My Notes Ask Your Teacher

Suppose that you toss a coin and roll a die. The sample space is shown in the figure below.



(a) What is the probability of obtaining tails and a five? (Enter the probability as a fraction.)

(b) What is the probability of obtaining tails or a five? (Enter the probability as a fraction.)

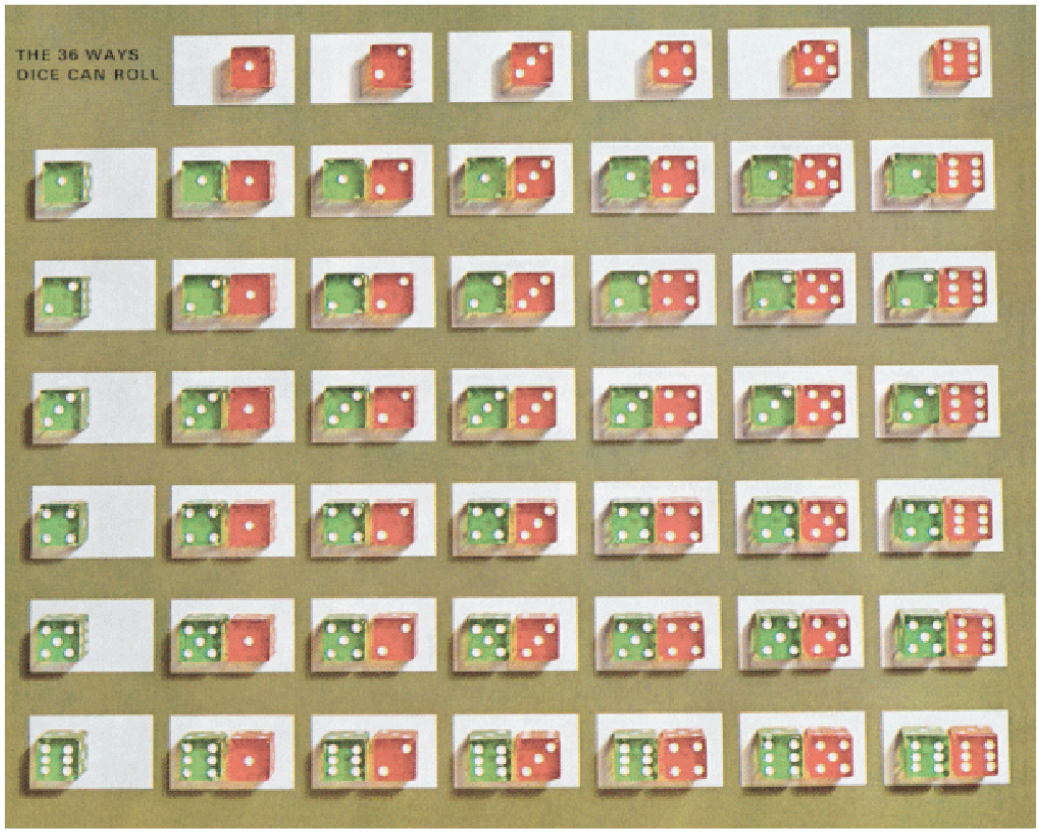
(c) What is the probability of obtaining heads and a two? (Enter the probability as a fraction.)

Need Help? Read It Chat About It

6. –/1.5 points SmithNM12 13.1.032. My Notes Ask Your Teacher

Use the sample space shown in the figure to find the probabilities for the experiment of rolling a pair of dice. (Enter the probability as a fraction.)

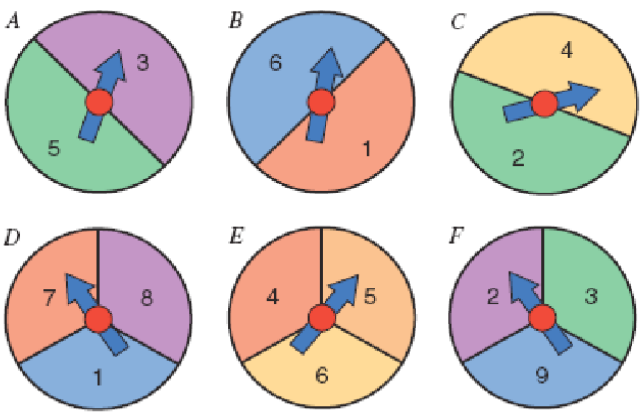
P(six)



Need Help? Read It Watch It Chat About It

7. –/1.5 points SmithNM12 13.1.041. My Notes Ask Your Teacher

Suppose you and an opponent each pick one of the spinners shown below.



A "win" means spinning a higher number. Construct a sample space for the following scenario.

A plays *B*

Which of the two spinners would you choose? (Assume that your goal is to have a higher probability of winning than your opponent.)

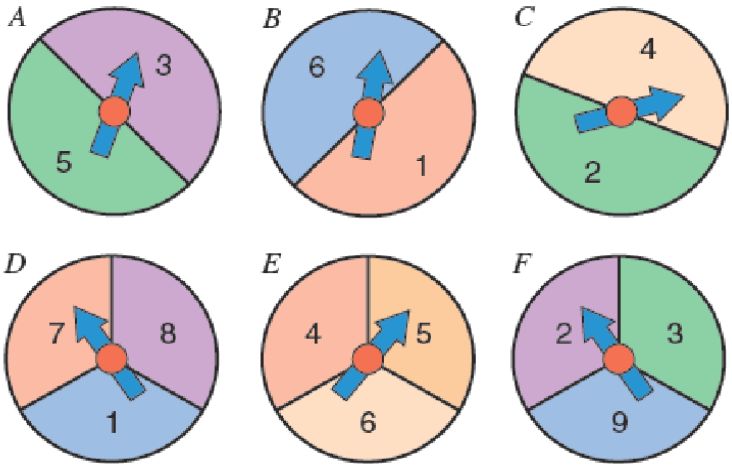
- spinner *A*
- spinner *B*
- Either spinner; they have the same probability of winning.

Need Help? Read It Watch It Chat About It

8. **1.5/1.5 points** | Previous Answers SmithNM12 13.1.047. My Notes Ask Your Teacher

Suppose you and an opponent each pick one of the spinners shown here. A "win" means spinning a higher number. Construct a sample space to answer the question, and tell which of the two spinners given you would choose in each case.

F plays *C*



- spinner *F* ✓
- spinner *C*
- either spinner

Need Help? Read It Chat About It

9. **–/1.5 points** SmithNM12 13.1.055a. My Notes Ask Your Teacher

Suppose that in a particular game two dice are tossed, and various amounts are paid according to the outcome. Find the requested probability. (Enter the probability as a fraction.)

If a twelve or an eight occurs on the first roll, the player wins. What is the probability of winning on the first roll?

Need Help? Read It Watch It Chat About It

10. **–/1.5 points** SmithNM12 13.2.024. My Notes Ask Your Teacher

What is the expectation for the $1 bets on a U.S. roulette wheel? See the figure. (Round your answer to the nearest cent.)

Three-number bet

$

Need Help? Read It Chat About It

11. –/1.5 points SmithNM12 13.2.040.CMI. My Notes Ask Your Teacher

An oil-drilling company knows that it costs $25,000 to sink a test well. If oil is hit, the income for the drilling company will be $355,000. If only natural gas is hit, the income will be $125,000. If nothing is hit, there will be no income. If the probability of hitting oil is 1/40 and if the probability of hitting gas is 1/20, what is the expectation for the drilling company?

$

Should the company sink the test well?

- Yes
- No

Need Help? Read It Master It Chat About It

12. –/1.5 points SmithNM12 13.3.012. My Notes Ask Your Teacher

Find the requested probability.

$P(\overline{A})$ if $P(A) = 0.4$

$P(\overline{A}) =$

Need Help? Read It Chat About It

13. –/1.5 points SmithNM12 13.3.017. My Notes Ask Your Teacher

Choose a natural number between 1 and 100, inclusive. What is the probability that the number chosen is not a multiple of 5? (Enter the probability as a fraction.)

Need Help? Read It Chat About It

14. –/1.5 points SmithNM12 13.3.018. My Notes Ask Your Teacher

Three fair coins are tossed. What is the probability that at least one is a tail? (Enter the probability as a fraction.)

Need Help? Read It Chat About It

15. –/1.5 points SmithNM12 13.3.022. My Notes Ask Your Teacher

The probability of drawing a club from a deck of cards is $\frac{1}{4}$; what are the odds in favor of drawing a club from an ordinary deck of cards?

ɔuldn't load plug-i

Need Help? Read It Watch It Chat About It

16. –/1.5 points SmithNM12 13.3.026. My Notes Ask Your Teacher

Suppose that the odds in favor are 9 to 1 that a man will be bald by the time he is 60. State this as a probability. (Enter the probability as a fraction.)

P(a man is bald by 60) =

Need Help? Read It Watch It Chat About It

17. –/1.5 points SmithNM12 13.3.029. My Notes Ask Your Teacher

What is the probability of obtaining exactly three tails in four flips of a coin, given that at least two are tails? (Enter the probability as a fraction.)

Need Help? Read It Watch It Chat About It

18. –/1.5 points SmithNM12 13.3.030. My Notes Ask Your Teacher

The Emory Harrison family of Tennessee had 13 boys.

Bettmann/CORBIS

(a) What is the probability of a 13-child family having 13 boys? (Assume that the probability of having a boy or a girl is the same. Round your answer to six decimal places.)

(b) What is the probability that the next child of the Harrison family will be a boy (giving them 14 boys in a row)? (Assume that the probability of having a boy or a girl is the same.)

Need Help? Read It Chat About It

19. –/1.5 points SmithNM12 13.3.031. My Notes Ask Your Teacher

A single card is drawn from a standard deck of cards. Find the probability if the given information is known about the chosen card. A face card is a jack, queen, or king.

P(face card | jack)

Need Help? Read It Watch It Chat About It

Submit Answer Save Progress Practice Another Version

20. **–/1.5 points** SmithNM12 13.3.044.CMI. **My Notes** **Ask Your Teacher**

What is the probability of getting a license plate that has a repeated letter or digit if you live in a state in which license plates have one numeral followed by three letters followed by three numerals? (Round your answer to one decimal place.)

_____ %

Need Help? Read It Master It Chat About It

Submit Assignment Save Assignment Progress

Home My Assignments