

Math Challengers

Probability Test

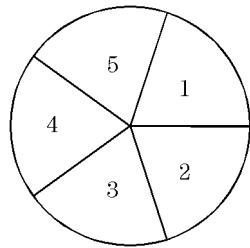
Name \_\_\_\_\_

Date \_\_\_\_\_

1. What is the probability of throwing two dice and *not* getting a 1, 2, 3, or 4 on either die?
2. A certain experiment has only 5 outcomes: A, B, C, D, and E. The probability of each outcome is two times the probability of the preceding outcome. What is the probability of E?
3. A card is drawn from a shuffled deck of 52 cards. What is the probability that the card is a queen or a face card?

4. A bag contains 6 blue balls and 3 green balls. What is the probability of drawing 4 blue balls without replacement?

5. The numbers on the spinner are all equally likely to occur. What is the probability that the pointer will land on an even number first, then on an odd number twice?



6. A bag of candies consists of 7 red, 3 blue and 1 green. If the three candies are selected at random, what is the probability that all 3 are red?

7. Two cards are drawn without replacement from a shuffled deck of 52 cards. What is the probability that the second card is a black face card?
8. Two cards are drawn without replacement from a shuffled deck of 52 cards. What is the probability that the first card is a black ace and the second card is a red ace?
9. One bag contains 6 white balls and 8 red balls. Another bag contains 5 white balls and 10 red balls. A coin is tossed to select a bag, then a ball is randomly selected from that bag. What is the probability that a red ball will be drawn?

10. Four people are to be randomly selected from a group of 7 women and 8 men. What is the probability of exactly 4 men among the 4 people?
11. A hand of 13 cards is dealt from a shuffled deck of 52 cards. What is the probability that this hand will contain exactly 1 ace?
12. A medical test for leukemia is 97% accurate. Suppose 0.6% of the population have leukemia. What is the probability that a person who tests positive does not have leukemia?

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**Answer List**

1. $\frac{1}{9}$	2. $\frac{16}{31}$	3. $\frac{3}{13}$
4. $\frac{5}{42}$	5. $\frac{18}{125}$	6. $\frac{7}{33}$
7. $\frac{3}{26}$	8. $\frac{1}{663}$	9. $\frac{13}{21}$
10. $\frac{2}{39}$	11. 0.439	12. 0.83670

**Catalog List**

1. AW3 GB 40	2. AW3 GB 52	3. AW3 GC 24
4. AW3 GD 14	5. AW3 GD 29	6. AW3 GD 52
7. AW3 GE 4	8. AW3 GE 6	9. AW3 GE 20
10. AW3 GF 8	11. AW3 GF 18	12. AW3 GE 30