Independent and dependent events worksheet – Grade 7

Grade 7 · Mixed level · 20 questions · **Version X5196**

Name: _____ Date: _____ Score: ___ / 20

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1. A box holds 3 red and 8 blue counters. One red is removed. How many red are left?

   Answer: _____

2. A jar has 8 red and 4 blue counters. One red is removed. What is the probability the next is red? Write it in lowest terms.

   Answer: _____

3. A box holds 6 red and 8 blue beads. One red is removed. How many red are left?

   Answer: _____

4. Are these independent or dependent: rolling a number cube, then flipping a coin?

   A. Independent **B.** Dependent

5. Mateo is two spinners spun one after the other. Does the first event change the chances of the second?

   A. Yes **B.** No

6. Ava is drawing two cards without replacing the first. Does the first event change the chances of the second?

   A. Yes **B.** No

7. A bag contains 8 red and 5 blue beads. One red is removed. What is the probability the next is red? Write it in lowest terms.

   Answer: _____

8. A box holds 6 red and 3 blue beads. You pick two without replacing. What is the probability both are blue? Write it in lowest terms.

   Answer: _____

9. A pile has 7 red and 6 blue cards. You pick one, replace it, then pick again. What is the probability of red then blue? Write it in lowest terms.

   Answer: _____

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10. A box holds 4 red and 7 blue counters. You pick one, replace it, then pick again. What is the probability of red then blue? Write it in lowest terms.

    Answer: _____

11. A jar has 6 red and 7 blue beads. You pick two without replacing. What is the probability both are blue? Write it in lowest terms.

    Answer: _____

12. The chance of rain on Monday is 10% and on Tuesday is 60%, independently. What is the chance of rain on both days, as a percent?

    Answer: _____

13. A box has 3 red and 3 blue counters. You pick two without replacing. What is the probability both are blue? Write it in lowest terms.

    Answer: _____

14. A bag contains 6 red and 4 blue marbles. You pick one, replace it, then pick again. What is the probability of red then blue? Write it in lowest terms.

    Answer: _____

15. A bag contains 5 red and 8 blue counters. You pick three without replacing. What is the probability all are red? Write it in lowest terms.

    Answer: _____

16. A jar has 3 red and 8 blue beads. You pick two without replacing. What is the probability of at least one blue? Write it in lowest terms.

    Answer: _____

17. A pile has 3 red and 3 blue cards. You pick two without replacing. What is the probability of at least one blue? Write it in lowest terms.

    Answer: _____

18. A bag contains 6 red and 3 blue beads. You pick two without replacing. What is the probability of at least one blue? Write it in lowest terms.

    Answer: _____

19. A bag holds 7 red and 7 blue counters. You pick two without replacing. What is the probability they are different colours? Write it in lowest terms.

    Answer: _____

20. The chance of rain on Monday is 10% and on Tuesday is 50%, independently. What is the chance of no rain on either day, as a percent?

    Answer: _____

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Answer key · Version X5196

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1. **2**
2. **7/11**
3. **5**
4. **A (Independent)**
5. **B (No)**
6. **A (Yes)**
7. **7/12**
8. **1/12**
9. **42/169**
10. **28/121**
11. **7/26**
12. **6%**
13. **1/5**
14. **6/25**
15. **5/143**
16. **52/55**
17. **4/5**
18. **7/12**
19. **7/13**
20. **45%**

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