Compound, independent and dependent events worksheet – Grade 9

Grade 9 · Mixed level · 20 questions · **Version X4706**

Name: _____ Date: _____ Score: ___ / 20

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1. A bus is on time 80% of days and a train 70% of days, independently. What percent of days are both on time?

   Answer: _____

2. A PIN has 5 digits from 0 to 9. How many PINs are possible?

   Answer: _____

3. A restaurant offers 2 starters, 2 mains and 4 desserts. How many three-course meals are there?

   Answer: _____

4. Maya draws two cards from a deck without replacing the first. Are the draws independent?

   A. No **B.** Yes

5. A PIN has 4 digits from 0 to 9. How many PINs are possible?

   Answer: _____

6. A restaurant offers 4 starters, 2 mains and 3 desserts. How many three-course meals are there?

   Answer: _____

7. A bus is on time 70% of days and a train 60% of days, independently. What percent of days are both on time?

   Answer: _____

8. A bag holds 13 batteries and 3 are dead. Mateo takes two without replacing. What is the probability both work? Write it in lowest terms.

   Answer: _____

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9. A bus is on time 70% of days. What is the percent chance it is late two days in a row, assuming independence?

   Answer: _____

10. A jar contains 14 batteries and 3 are dead. Kai takes two without replacing. What is the probability both are dead? Write it in lowest terms.

    Answer: _____

11. A box has 15 batteries and 2 are dead. Ethan takes two without replacing. What is the probability both are dead? Write it in lowest terms.

    Answer: _____

12. A bag holds 10 batteries and 2 are dead. Leah takes two without replacing. What is the probability both work? Write it in lowest terms.

    Answer: _____

13. A bus is on time 90% of days. What is the percent chance it is late two days in a row, assuming independence?

    Answer: _____

14. A box has 15 batteries and 4 are dead. Lucas takes two without replacing. What is the probability both are dead? Write it in lowest terms.

    Answer: _____

15. A jar contains 8 batteries and 2 are dead. Hana takes two without replacing. What is the probability of exactly one dead? Write it in lowest terms.

    Answer: _____

16. A box has 13 batteries and 4 are dead. Dev takes two without replacing. What is the probability of exactly one dead? Write it in lowest terms.

    Answer: _____

17. A bag holds 12 batteries and 2 are dead. Hana takes two without replacing. What is the probability of exactly one dead? Write it in lowest terms.

    Answer: _____

18. A team wins 60% of home games and 70% of away games. What is the percent chance of winning one home and one away game, assuming independence?

    Answer: _____

19. A security system has 3 independent alarms, each working 70% of the time. What is the percent chance that all fail, to two decimal places if needed?

    Answer: _____

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20. A bag holds 13 batteries and 2 are dead. Ravi takes two without replacing. What is the probability of at least one dead? Write it in lowest terms.

    Answer: _____

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Answer key · Version X4706

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1. **56%**
2. **100000**
3. **16**
4. **A (No)**
5. **10000**
6. **24**
7. **42%**
8. **15/26**
9. **9%**
10. **3/91**
11. **1/105**
12. **28/45**
13. **1%**
14. **2/35**
15. **3/7**
16. **6/13**
17. **10/33**
18. **42%**
19. **2.7**
20. **23/78**

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