

Practice 12-5 Independent and Dependent Events

A shelf holds 3 novels, 2 biographies, and 1 history book. Two students in turn choose a book at random. What is the probability that the students choose each of the following?

- | | |
|----------------------------------|-----------------------------|
| 1. both novels _____ | 2. both biographies _____ |
| 3. a history, then a novel _____ | 4. both history books _____ |

Meg flipped a penny the given number of times. What is the probability the results were as follows?

- | | |
|---------------------------------|-------------------------|
| 5. 2; two heads _____ | 6. 3; three tails _____ |
| 7. 2; a tail, then a head _____ | 8. 5; five tails _____ |

Two puppies are chosen at random from a box at the mall. What is the probability of these outcomes?

Free Puppies for Adoption!
 5 black retrievers
 3 brown hounds
 4 black setters

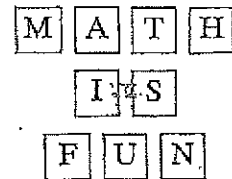
- | | |
|------------------------|--------------------------------------|
| 9. both black _____ | 11. a setter, then a hound _____ |
| 10. both brown _____ | 12. a retriever, then a setter _____ |
| 13. both setters _____ | |

Are the events independent or dependent? Explain.

14. A guest at a party takes a sandwich from a tray. A second guest then takes a sandwich.
- _____
- _____

15. Sam flips a coin and gets heads. He flips again and gets tails.
- _____

You can select only two cards from the right. Find the probability of selecting a T and an N for each condition



16. You replace the first card before drawing the second.
- _____
17. You do not replace the first card before drawing the second.
- _____

Practice