

Quiz 6 Review Sheet

Name: _____

Vocabulary—Use your notes to find the exact answer that fits each blank.

1. Two events A and B are _____ if the fact that A occurs does not change the probability of B occurring.
2. Two events are considered _____ when the outcome of the first event changes the probability of the second event occurring.
3. The probability that event B occurs knowing that event A already occurred is called _____ probability.
4. To solve a _____ multiply n times every number between 1 and n .
5. A _____ is an arrangement of n objects in which the order of the objects is a distinguishing factor.
6. A _____ is a selection of objects without regard to order because order does not distinguish one set of objects from another.
7. The symbol for Conditional Probability is _____ and is read as "probability of B given A."
8. The first step of solving a two-way table probability problem is to transform the table into a _____.

Work Problems—answer each question fully.

ISN pgs. 33-34

Find the probability of drawing the given cards from a standard 52-card deck.

9. A 2, then a face card without replacing either
10. A 2, then a face card replacing both
11. A jack, then a king without replacing either
12. A jack, then a king replacing both
13. A heart, then a diamond, then another heart without replacing any.
14. All three are jacks without replacing any
15. All three are red cards replacing each after its drawn

ISN pgs. 35-36

16. How many 5-digit numbers can be created from the digits 3, 1, 6, 4, 0, 8, and 2 without repeating any?
17. How many ways can 8 paintings be line up on a wall?
18. How many different outfits can be made from 6 shirts, 5 pants, and 3 shoes?

ISN pgs. 35-36

Students were planning on going on a school picnic. The teacher was taking a survey of who was going and who was not. Suppose that any one of these students is randomly selected.

Students	Going to picnic	Not going to picnic
Boys	14	25
Girls	16	5

19. $P(\text{girl}) =$ _____
20. $P(\text{boy}) =$ _____
21. $P(\text{not going}) =$ _____
22. $P(\text{going}) =$ _____
23. $P(\text{girl} | \text{going}) =$ _____
24. $P(\text{boy} | \text{not going}) =$ _____
25. $P(\text{going} | \text{boy}) =$ _____
26. $P(\text{not going} | \text{girl}) =$ _____

ISN pgs. 37-38

27. In how many ways can a committee of three persons be chosen from four married couples if all persons are equally eligible?
28. Eight people are running for the school board. The person with the highest number of votes is the chair of the board, the second highest will be vice-chair, and the third highest vote-getter will serve as the secretary. In how many ways can the positions be filled?
29. PA license plates have 3 letters followed by 4 numbers.
- If the same letter or number can be repeated, how many can be made?
 - If the same letter CANNOT be repeated, how many can be made?
30. 10 people were trying to be one of the first 5 callers to a radio station. How many different set of people could have succeeded?
31. For summer reading, a teacher gives her students 20 novels to choose from. Each student must read 3 of these novels. In how many ways can a student select 3 novels to read?
32. The volleyball team has 9 players, but only 6 can be on the court at one time. How many different ways can the team fill the court?