

PROBABILITY REVIEW

1. A pollster asked children and adults about a TV program (note $n(S)=100\%$)
 - 25% of the people were children
 - 60% of the children enjoyed the program
 - 20% of the adults enjoyed the programFTPT, if a person was chosen at random from those polled,
 - a) that person was a child who didn't like the program
 - b) that person enjoyed the program, given that the person was a child
 - c) that person was an adult, given that the person enjoyed the program.
2. If 7 boys and 4 girls line up in the cafeteria in a random order, FTPT the people at the beginning and at the end of the line are the same sex.
3. Two cards are drawn from a deck. FTPT
 - a) both are spades
 - b) one is a spade and the other is a heart
4. Three boys and three girls are seated in a row. FTPT
 - a) 3 girls sit together
 - b) boys and girls sit in alternate seats
5. Two dice are tossed. FTPT
 - a) the total is greater than 8
 - b) the larger number is greater than 4
6. Of 120 students in a grade, 60 are studying French, 50 are studying Spanish, and 20 are studying both. If a student is chosen randomly, FTPT
 - a) the student is not studying either
 - b) the student is studying Spanish but not French.
7. One card is selected from 50 cards numbered 1,2,3,...50. FTPT the number is
 - a) divisible by 5
 - b) prime
 - c) has exactly one digit as a 2
8. If the odds against an event are 5:12, what is the probability that the event occurs?
9. If you choose one of the arrangements randomly, FTPT the letters
 - a) of RANDOM will begin and end with a consonant
 - b) of PROBABILITY will have the BAB together, in that order
10. If you choose one letter randomly from ALABAMA and one from MISSISSIPPI, FTPT
 - a) you will choose a vowel from the first word AND a consonant from the second
 - b) you will choose a vowel from the first word OR a consonant from the second
11. If a committee of 5 is selected from 14 men and 11 women, FTPT

- a) Both Julia and Frankie are selected
- b) Emma and Ross are not both selected because they hate each other and won't serve together
- c) more women than men are selected.

12. In a college, 4% of men and 1% of women are taller than 6 feet. 60% of students are women. Given that a student is selected at random and is taller than 6 feet, FTPT the student is a woman.
13. A committee of four is to be selected from 15 boys and 10 girls. FTPT the committee has at least one boy and one girl.
14. FTPT you are dealt a 5-card poker hand called THREE OF A KIND (3 of one denomination and 2 others).
15. Two pets are selected at random from a group consisting of four dogs and two cats. FTPT both pets are cats, given that at least one is a cat.