Probability Formulas
Complement Rule and Addition Rule

T/F Question
A question on a quiz has two possible answers (True/False). If you guess on this question, what's the probability of guessing:
Approximate to the nearest thousandths.
1. Correct?
2. Incorrect?

Multiple Choice Question
A multiple choice question has 4 possible answers **a,b,c,d**. If you guess on this question, what is the probability of guessing:
Approximate to the nearest thousandths.
3. Correct?
4. Incorrect?

Multiple Choice Question
A multiple choice question has 6 possible answers **a,b,c,d,e,f**. If you guess on this question, what is the probability of guessing:
Approximate to the nearest thousandths.
5. Correct?
6. Incorrect?

Bag of Marbles
A bag contains the following marbles.
Approximate to the nearest thousandths.

6 red
4 yellow
2 blue
1 green

If you select a marble at random, what's the **probability** of selecting a:
Approximate to the nearest thousandths.
7. Non red marble?
8. Non yellow marble?
9. Red and Yellow marble?
10. Red or Yellow marble?
11. Blue and green marble?
12. Blue or green marble?

Defective iPhone
A box contains 588 iPhones in which 560 are functional. If you select an iPhone at random, what's the probability of selecting:
Approximate to the nearest thousandths.
    13. A functional iPhone?
    14. Defective iPhone?

Classroom
A class contains 16 boys and 12 girls. If you select a person at random, what's the probability of selecting a:
Approximate to the nearest thousandths.
    15. Boy?
    16. Non boy?
    17. Boy or girl?

Standard Deck
If you select a card from a standard deck assuming the ace is high, what's the **probability** of selecting a:
Approximate to the nearest thousandths.
    18. King of hearts?
    19. King or heart?
    20. Ace and King?
    21. Ace or King?
    22. Spade or face card?
    23. Club or red card?

Political Affiliation

A class contains the following students based on their political affiliation.

12 Democrats
8 Republicans
4 Independents
2 Peace and Freedom
1 Socialist

 If you select a person at random, what's the probability of selecting a student who is a:
Approximate to the nearest thousandths.
   24. Non-Democrat?
   25. Non-Republican?
   26. Non-Socialist?
   27. Democrat or Socialist?
   28. Republican or Independent?

Titanic Mortality Table

	Men	Women	Boys	Girls	Total
Survived	332	318	29	27	706
Died	1360	104	35	18	1517
Total	1692	422	64	45	2223

If you select a passenger at random, what's the **probability** of selecting a person who:
Approximate to the nearest thousandths.
   29. Non-Man?
   30. Non-Survivor?
   31. Non-Boy?
   32. Man or boy (male)?
   33. Woman or girl (female)?
   34. Man who survived (man and survived)?
   35. Woman who died (woman and died)?