

Probabilities Using Counting Techniques

$$P(E) = \frac{n(E)}{n(S)} \quad \frac{\text{event}}{\text{total}}$$

May 8-6:54 AM

Probabilities Using Permutations

Two cards are drawn at random from a standard deck of 52 cards, without replacement. What is the probability that both cards drawn are queens?

$$\frac{\text{event}}{\text{total}} = \frac{\text{the way to draw 2 cards out of 4 queens}}{\text{the way to draw 2 cards from a deck of 52}}$$

May 8-6:58 AM

Probabilities Using Permutations

Mrs. Smith has to correct papers for three different classes: Course I, Course II, and Course III. If Mrs. Smith corrects the papers for each class at random, what is the probability she corrects Course I papers first?

May 8-7:02 AM

Probabilities Using Permutations

Exactly Three People form a line at a grocery store. What is the probability that they will line up in descending order of age? (I.e. oldest, middle and youngest)

May 8-7:04 AM

Probabilities Using Combinations

A jar contains 3 white and 6 red marbles, all of equal size. Three marbles are drawn at random without replacement. What is the probability that **at least** 2 marbles drawn are red?

May 8-7:06 AM

Probabilities Using Combinations

A bag of cookies contains 6 chocolate chip, 5 peanut butter, and 1 oatmeal. Brandon selects 2 cookies at random. Find the probability that Brandon selected :

a) 2 chocolate chip cookies

b) 1 chocolate chip and 1 peanut butter

May 8-7:07 AM

Probabilities Using _____

Three cards are drawn randomly from a hat containing cards with the twenty-six letters of the alphabet on them. Determine the probability of selecting A and B.

May 8-7:11 AM

Probabilities Using _____

Six students are asked to secretly choose a number from 1 to 15. Determine the probability that at least two students choose the same number to the nearest thousandth.

May 8-7:11 AM