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Section 12.3 Practice

Calculate each of the following probabilities. Make sure to show some work and reduce fractions for full credit!!!

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| 1) What is the probability of randomly selecting a red card from a normal deck of playing cards? | 2) What is the probability of rolling a prime number on a normal 6-sided die (Hint: A prime number is a number greater than 1 that you can only obtain by multiplying one and itself) | 3) What is the probability of randomly selecting a face card from a normal deck of playing cards? (Hint: A face card is a Jack, Queen, or King) |
| 4) In a vase of flowers there are 4 daisies, 5 lilies, and 5 roses. What is the probability of randomly selecting one daisy from the vase of flowers? | 5) In a bag of marbles there are 4 red, 7 blue, 3 purple, and 6 yellow marbles. What is the probability of randomly selecting one yellow marble? |
| 6) A cookie jar contains 10 chocolate chip cookies, 8 sugar cookies, and 4 peanut butter cookies. When pulling 2 cookies out at one time, what is the probability of randomly selecting 2 chocolate chip cookies? | 7) A cookie jar contains 10 chocolate chip cookies, 8 sugar cookies, and 4 peanut butter cookies. When pulling 4 cookies out at one time, what is the probability of randomly selecting 3 sugar cookies and 1 peanut butter cookie? |
| 8) Bob is moving and all of his sports cards are mixed up in a box. Ten of the cards or basketball cards, ten are hockey cards, and five are football cards. If he reaches in the box and selects them at random, what is the probability of selecting three football cards? | 9) Bob is moving and all of his sports cards are mixed up in a box. Ten of the cards or basketball cards, ten are hockey cards, and five are football cards. If he reaches in the box and selects them at random, what is the probability of selecting two basketball cards and two hockey cards? |
| 10) Each letter of the alphabet is written on a different piece of paper and placed into a bag. What is the probability of randomly selecting three vowels at the same time? | 11) In Mr. Smith’s 3rd Hour Algebra class there are 14 female and 13 male students. Each student’s name is written on a piece of paper and then placed into a jar. If Mr. Smith reaches into the jar and randomly selects two names to be in a group together, what is the probability of selecting two male students? |
| 12) Janice has 8 DVD cases on a shelf, one for each season of her favorite TV show. Her brother accidently knocks them off the shelf and they fall onto to the floor. When her brother puts them back on the shelf, he does not pay attention to the season number and puts the cases on the shelf randomly. What is the probability that Season 3 is put back in the correct spot? | 13) Janice has 8 DVD cases on a shelf, one for each season of her favorite TV show. Her brother accidently knocks them off the shelf and they fall onto to the floor. When her brother puts them back on the shelf, he does not pay attention to the season number and puts the cases on the shelf randomly. What is the probability that Season 1 and 8 are in the correct spot? |