

10-7 Day 2

Objective:

Determine the probability of **OR** events

Feb 14-7:53 AM

REVIEW: Independent and Dependent Events (AND)

A bag contains 4 yellow marbles, 2 blue marbles, and 6 green marbles. Two consecutive draws are made. Find the probability of the following event:

P(yellow, blue) with replacement $\frac{4}{12} \cdot \frac{2}{12} = \frac{1}{18}$

P(yellow, blue) without replacement $\frac{4}{12} \cdot \frac{2}{11} = \frac{2}{33}$

P(green, green) with replacement $\frac{6}{12} \cdot \frac{6}{12} = \frac{1}{4}$

P(green, green) without replacement $\frac{6}{12} \cdot \frac{5}{11} = \frac{5}{22}$

Feb 14-8:40 AM

Reminder!!! AND means MULTIPLY OR means ADD

A standard number cube is thrown, what is the probability that it will show a 1 or a 2?

Sometimes it helps to think about the sample space: $\{1, 2, 3, 4, 5, 6\}$

$\frac{1}{6} + \frac{1}{6} = \frac{2}{6} = \frac{1}{3}$

A bag contains 10 orange, 4 black, and 6 white marbles. What is the probability of a marble drawn at random being:

A) black $\frac{4}{20} = \frac{1}{5}$

B) orange $\frac{10}{20} = \frac{1}{2}$

C) orange or black $\frac{4}{20} + \frac{10}{20} = \frac{14}{20} = \frac{7}{10}$

Feb 14-7:59 AM

Use your notecard!!!

1,1	1,2	1,3	1,4	1,5	1,6
2,1	2,2	2,3	2,4	2,5	2,6
3,1	3,2	3,3	3,4	3,5	3,6
4,1	4,2	4,3	4,4	4,5	4,6
5,1	5,2	5,3	5,4	5,5	5,6
6,1	6,2	6,3	6,4	6,5	6,6

Find the probability that:

A) the sum of the dice is 7. $\frac{6}{36}$

B) the sum of the dice is 2. $\frac{1}{36}$

C) the sum of the dice is 2 or 7. $\frac{6}{36} + \frac{1}{36} = \frac{7}{36}$

Feb 14-8:07 AM

1,1	1,2	1,3	1,4	1,5	1,6
2,1	2,2	2,3	2,4	2,5	2,6
3,1	3,2	3,3	3,4	3,5	3,6
4,1	4,2	4,3	4,4	4,5	4,6
5,1	5,2	5,3	5,4	5,5	5,6
6,1	6,2	6,3	6,4	6,5	6,6

D) either dice shows a 1. $\frac{11}{36}$

E) the sum is greater than 10. $\frac{3}{36} = \frac{1}{12}$

F) the sum is prime. $\frac{15}{36} = \frac{5}{12}$

2, 3, 5, 7, 11

Feb 14-8:36 AM

Being that I love math so much, lets say I wrote the letters of the following words on index cards and placed them in a box.

ALGEBRA RULES

If I drew one card out of the box, find the probability the card read:

a) The letter 'A' $\frac{2}{12} = \frac{1}{6}$

b) The letter 'G' $\frac{1}{12}$

c) The letter 'A' OR 'G' $\frac{2}{12} + \frac{1}{12} = \frac{3}{12} = \frac{1}{4}$

Feb 2-6:13 PM

Blockbuster rented the following number of movie titles in each of these categories:
 170 Horror, 230 Drama, 120 Mystery, 150 Romance, and 310 Comedies.

If a person wanted to rent a movie selected one at random, find the probability:

a) They chose a comedy OR a mystery?

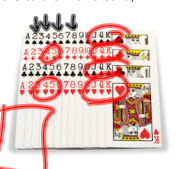
$$\frac{310 + 120}{980} = \frac{430}{980} = \frac{43}{98}$$

b) They chose a Horror OR a Romance?

$$\frac{170 + 150}{980}$$

Feb 2-6:03 PM

Using a standard deck of cards. If a person were to draw one card, find the probability:



a) They chose a 5 or a King?

$$\frac{4}{52} + \frac{4}{52} = \frac{8}{52}$$

b) They chose a face card or a 2?

$$\frac{12}{52} + \frac{4}{52} = \frac{16}{52}$$

c) They chose a red 4 or a prime?

$$\frac{2}{52} + \frac{16}{52} = \frac{18}{52}$$

What is a prime number?

Feb 2-6:08 PM

Assignment:

10-7 Day 2 Worksheet

Feb 14-8:44 AM