ALGEBRA 4

Day 59

Bell Work

If a, b, and c are positive integers such that $a^b = x$ and $c^b = y$, then $xy = ?$

F. ac^b

G. ac^{2b}

H. $(ac)^b$

J. $(ac)^{2b}$

K. $(ac)^{b^2}$

Things to Study

Level 2:

Fundamental Counting Principal
Combination & Permutation
Probability
Mutually Exclusive
Independent vs Dependent

Level 3:

Set up & Solve Combination and Permutation
Probability with multiple events

Level 4:

Set up and solve your own probability problems

Quiz: Level 2

- You have 10 shirts and 8 pairs of pants. How many outfits could you wear?

- A bag has 6 red, 4 green, and 10 blue marbles.

  Find P(green) *P(not red)*

- Is the following independent or dependent: a student flips a coin and they roll an even number on a die?

Quiz: Level 2

- You have 10 shirts and 8 pairs of pants. How many outfits could you wear? **Answer: 80**

- A bag has 6 red, 4 green, and 10 blue marbles.

  Find P(green) *P(not red)*

- Is the following independent or dependent: a student flips a coin and they roll an even number on a die?

Quiz: Level 2

- You have 10 shirts and 8 pairs of pants. How many outfits could you wear? ***Answer: 80***

- A bag has 6 red, 4 green, and 10 blue marbles.

  Find P(green)
  Answer: 4/20

  P(not red)
  Answer: 14/20

- Is the following independent or dependent: a student flips a coin and they roll an even number on a die?

  Answer: Independent

Quiz: Level 3

- If you have 6 novels, and 4 comic books in your backpack. How many ways can you randomly select two of them to read?

- A bag has 6 red, 4 green, and 10 blue marbles.

  Find P(green or red)

  P(red then red) [*with* & *without* replacement]

Quiz: Level 3

- If you have 6 novels, and 4 comic books in your backpack. How many ways can you randomly select two of them to read?

  Answer: 10C2 = 45

- A bag has 6 red, 4 green, and 10 blue marbles.

  Find P(green or red) ***Answer: 10/20***

  P(red then red)

	with	*without*
Answer:	***6/20 * 6/20***	***6/20 * 5/19***
	9/100	*3/38*

Quiz: Level 4

The dance coach has decided to randomly choose 4 players to represent the team as captains. The team consists of 12 seniors and 8 juniors. What is the probability that only one senior will be chosen at random?

Quiz: Level 4

The dance coach has decided to randomly choose 4 players to represent the team as captains. The team consists of 12 seniors and 8 juniors. What is the probability that only one senior will be chosen at random?

$(12C1 / 20C4) = 12/4845$

$= 4/1615 = 0.00247 = 0.247\%$

Review Assignment

Page 752 #5-31

Page 757 #1-10, 18, 20