

Compound Probability

Name: _____

**Fifteen identical red jellybeans are sitting in a dish.
3 taste like cherry, 5 taste like cinnamon, and 7 taste like Tabasco.**



- 1) If you eat three of the jellybeans at random, what is the probability that none are Tabasco?
- 2) If you eat four of the jellybeans at random, what is the probability that all of them are cinnamon?
- 3) At 1:00, you pick up one jellybean, lick it, and put it back in the mix.
At 2:00, you pick up one jellybean, lick it, and put it back in the mix.
At 3:00, you pick up one jellybean, lick it, and put it back in the mix.
What is the probability you get cherry all three times?

Standard 52-card deck

	A	2	3	4	5	6	7	8	9	10	J	Q	K
clubs													
hearts													
spades													
diamonds													
											face cards		

**You grab a card at random,
put it back in the deck,
and draw again.**

**You grab a card at random,
stuff the card in your mouth,
and draw again.**

4) $P(\text{a club, then a diamond}) =$

8) $P(\text{a club, then a diamond}) =$

5) $P(\text{a jack, then a seven}) =$

9) $P(\text{a jack, then a seven}) =$

6) $P(\text{a five, then a face card, then a five}) =$

10) $P(\text{a five, then a face card, then a five}) =$

7) $P(\text{a queen, then a queen, then a queen}) =$

11) $P(\text{a queen, then a queen, then a queen}) =$

Compound Probability

Name: _____



The Idaho lottery numbers its ping pong balls from 1 to 60 and then randomly picks six of them. To win the lottery, you must must correctly guess all six numbers.

- 12) What is the probability that the first ping pong ball picked is one of your numbers?
- 13) What is the probability that the first two ping pong balls picked are your numbers?
- 14) What is the probability of winning the lottery?

A football team scores in the 1st Quarter 60% of the time.

**If they score in the 1st, they end up winning the game 75% of the time.
If they don't score in the 1st, they win the game only 10% of the time.**



- 15) What is the probability the team will lose its next game?

**A filing cabinet has five drawers. Each drawer has fifty folders.
Craig, a thief, knows that \$1000 is hiding in one of the folders.**

- 16) Craig makes a guess and grabs one folder.
What is the probability he does not have the \$1000?
- 17) What is the probability Craig does not find the \$1000 after his first four guesses?
- 18) Craig has enough time to empty two drawers into his bag and run.
What is the probability he does not get the \$1000?

