## Part I - Riddle Me This: Answer the following questions about riddles from fiction and history

1. What answer does Oedipus correctly provide to the riddle of the Sphinx?
2. And what "creature would you be unwilling to kiss" was the Sphinx looking for when she meets Harry during the Triwizard Tournament?
3. The Mad Hatter confounds Alice with this question, which has remained (officially) unanswered.
4. What four-symbol combination did Irene Adler use to lock her phone on the BBC's Sherlock?
5. Who poses a riddle that is answered with "The fox burying his grandmother under a hollybush"?
6. Answer the following Sumerian stumper, the oldest known riddle from history: "There is a house. One enters it blind and comes out seeing. What is it?"
7. What is the final riddle Bilbo asks Gollum during their riddle contest?
8. Odin poses the following to King Heidrek - what correct answer does the king provide? "Four hang, four sprang, two point the way, two to ward off dogs, one dangles after, always rather dirty. What am I?"
9. What is the name of the 10th century Anglo-Saxon codex with such riddling gems as the following:
"I am a wondrous creature for women in expectation, a service for neighbors. I harm none of the citizens except my slayer alone. My stem is erect, I stand up in bed, hairy somewhere down below. A very comely peasant's daughter, dares sometimes, proud maiden, that she grips at me, attacks me in my redness, plunders my head, confines me
in a stronghold, feels my encounter directly, woman with braided hair. Wet be that eye. Answer: Onion"
10. The following riddle purportedly killed what Greek? "All that we caught, we left behind, and carry away all that we did not catch. What am I talking about?"
11. In a riddle alleged to have been created by Einstein, what color was the bear?
12. In Judges 14:14, who poses a riddle about a lion and some bees?
13. What is the third question asked of Sir Lancelot (the first knight) when he tries to cross the Bridge of Death in Monty Python and the Holy Grail?
14. What is the third question asked of Sir Robin (the second knight) when he tries to cross the Bridge of Death?
15. What is the third question asked of King Arthur when he tries to cross the Bridge of Death?
16. This series of riddles, puzzles, and cryptograms has been speculated to be an alternate reality game, a marketing gimmick, an intelligence recruiting technique, or a cult, but it's true intentions and creators have never been revealed
17. This sculpture on the grounds of the CIA headquarters is famed for its four mysterious encoded messages, only three of which have been solved.
18. How did Joshu answer the celebrated zen koan "Has a dog Buddha-nature or not?"
19. An ancient Latin palindrome states ""In girum imus nocte et consumimur igni" meaning "we wander in the night, and are consumed by fire." To what does this puzzle refer?
20. What hidden message does Ralphie decode in A Christmas Story?
21. How does Jay-Z answer the following riddle in Kanye's Monster:
"Sasquatch, Godzilla, King Kong, Loch Ness Goblin, ghoul, a zombie with no conscience Question: What do these things all have in common?"

## Answer the following from "The Riddle Song" (made famous in Animal House)

22. How can there be a cherry/That has no stone?
23. And how can there be a chicken/That has no bone?
24. And how can there be a story/That has no end?
25. And how can there be a baby/With no cryin'?

Answer the following riddles from Child Ballad 1, the traditional English ballad of riddles
26. What is longer than the way?
27. What is deeper than the sea?
28. What is louder than the horn?
29. What is sharper than a thorn?
30. What is whiter than milk?
31. What is softer than silk?
32. What is worse than woman?

## Part II: Fun With Numbers - Solve the following familiar math riddles.

33. In a corridor, there are 101 candles, all initially not lit. The candles are labeled 1 through 101. Sallie walks through this corridor 101 times in one day. Every time Sallie passes through the corridor, she stops at some of the candles. If Sallie stops at a candle that is lit, she will blow it out. If she stops at one that isn't lit, she will light it. On her first trip, Sallie stops at every single candle. On her second trip, she stops at candles $2,4,6,8$, etc. On her third trip she stops at candles $3,6,9,12$, etc. In general, on her n-th trip, she stops at candles $\mathrm{n}, 2 \mathrm{n}, 3 \mathrm{n}$, etc.

Which candles are lit at the end of the day?
34. Youngsoo, Tom, and Eddy are hanging out in the entry common room. Youngsoo and Tom ask Eddy when his birthday is. Eddy writes down the following list of months and days:

January 12, January 13, May 13, May 14, May 18, June 16, June 19, August 12, August
14, August 16.
Eddy tells Youngsoo which month his birthday is, but not what day it's on, and he tells Tom the day of his birthday but not the month. Youngsoo then says, "Tom definitely doesn't know which is Eddy's birthday." Then Tom says, "I didn't know at first, but I do now," to which Youngsoo replies, "And now I know as well."

When is Eddy's birthday?
(Assume that Youngsoo and Tom only say things when they are certain that they are correct in saying them, and that they are perfect logicians)
35. Katie and her friends decide to go to snack bar. In order to choose whether to go to Lee's or Whitman's, Katie wants to know whether Lee's is making vegan blueberry banana french toast that night. There are two people working at Lee's that night: one of them always tells the truth and one of them always lies, though Katie doesn't remember which is which. Katie only has enough time to ask one of the workers one yes/no question before her friends make her decide whether to go to Lee's or Whitman's. What yes/no question could Katie ask that will guarantee that she knows whether or not Lee's is serving vegan blueberry banana french toast?
36. Via can't remember whether her class is in Stetson Court or the Sawyer-Stetson library. She comes across three students: Hoffman, Cummings, and Zelnick. One of them only tells lies, one of them only tells the truth, and one of them tells the truth half of the time and lies the other half, though Via doesn't know which of them answers which way. Via
can only ask two questions (not necessarily yes/no questions), each one directed to exactly one of the students. What are a pair of questions that Via can use to guarantee that she will figure out where her class is?
37. Given a fixed positive integer $k$, consider the numbers $1,2, \ldots, 3 k+1$. Consider any permutation (random ordering) of these integers. What is the probability that the ordering is such that the first n integers in the ordering doesn't sum to a multiple of 3 for every n between 1 and $3 k+1$ ? Feel free to use factorials in your answer.
(For example, let $\mathrm{k}=1$, so we are dealing with the numbers $1,2,3,4$. The ordering (1, 3, 4,2 ) is such such that first $n$ integers don't sum to a multiple of 3 for all $n$, whereas $(1,3,2,4)$ doesn't satisfy this because $1+3+2=6$ which is a multiple of 3$)$.

