Title	Class	Term	Date
Class #	Aim: How is the coded plot of a story related to the way computers function?		
Do Now	(Groups) Use one of our 3 methods to show all the possible versions of "LorT?"		
Role	Collect HW	Return work	Collect Do Now
HW share	Anyone to read? Let teacher read? *ID decision points of each version.*		

Share Do Now / Activity	**Possible versions of "LorT?": *It comes down to "decision points."***
	1) *8 possibilities*: how do we know that?
	A] Brute Force (--> Code Box) ~ list on board
	i. *ID decision points chronologically*; show horizontally: TK P L
	ii. Record decisions of truth or trust as T, falsehood or mistrust as F.
	iii. Record each 3 symbol code in its B2 position, lowest to highest.
	iv. *Names for each version, along with death or marriage.*
	v. How can you tell we're done? (*Can't. We need another method.*)
	B] Tree Diagram: *1 (TK) dec. pt --> 2 (P) dec. pts --> 4(L) dec. pts --> 8 endings*
	C] Function: permutations and exponential growth
	i. *How does the # of T/F choices affect the # of possible versions?*
	ii. Permutation Function ~ on board
	a. *versions = (# of options per choice) raised to (# of choices) power*
	b. *$f(x) = 2$ raised to (x) power*
	2) What if the lady and the tiger could secretly switch places on their own?
	A] *Show the versions for 4 decision points.*

Mini-Lesson 1	**What do the decision points of "LorT?" have to do with computers?**
	1) Computers work with information in the form of 1s and 0s.
	A] 1s and 0s can mean almost anything. B] Meanings of 1s & 0s are determined by us.
	2) Using 1s & 0s requires a "protocol" = method/order of doing something
	A] Define the protocol we used to code "LorT?" (our Code Box)
	i. Symbol: *T = trust, F = falseness* ii. Position: *TK --> P --> L*
	B] "binary" = system with only 2 parts (T or F in our case)
	C] "binary protocol"= *method/order of doing something w/only 2 elements*
	3) Switch the Code Box to 1s and 0s.
	A] 1st identify the meanings of our symbols: T = True = 1, F = False = 0
	B] Identify the meanings of our positions: 1st # = TK, 2nd = P, 3rd = L
	4) Do we need to record the ending with another digit?
	A] *No. We can always figure the ending out from the 1st 3 digits.*
	B] Can you see any patterns for the endings? *Single 0 --> death*
	5) TK-P-L Code Box = a binary protocol

Time? Mini-Lesson 2	**ASCII, another Binary Protocol**
	1) What happens inside a computer when you press a key while typing?
	2) The computer codes that letter as 1s & 0s then shows it on the screen.
	3) Only the computer user sees this info. as anything other than 1s & 0s.
	4) Hand out ASCII chart.
	A] = American Standard Code for Information Interchange
	B] = *a binary protocol for the computer to understand the English alphabet*
	C] 1 set of codes for lower case letters, 1 set for upper case letters
	5) Does anyone know a simpler alphabetic binary protocol? *Morse Code*

HW	Write your name in ASCII.