

Problems to practice at home

Assigned on 9/19/21

1. Bim always tells the truth, and Bom always lies. (Assume you don't know who is Bim and who is Bom.) What question would you ask each of them if you want to get the same answer?
2. While visiting the Knights and Liers Island, you pass a beautiful garden where three islanders, Sam, Bob, and Tom, are watching the sunset. You ask Sam, "Are you a knight or a liar?" Sam is shy and you can't hear his quiet answer. So you ask Bob, "What did Sam say?" Bob answers, "He said that he is a liar". Then Tom screams: "Don't trust Bob! Bob is a liar!" Can you decide whether Bob and Tom are knights or liars?
3. Using the Keyword cipher, decode the sentence

DZRL LNBZ QZ QNHH HZVJD JZXMJKNED

The keyword is SPINACH and the keyletter is F.

(It may be helpful to look on the next page where you will find the example of the keyword cipher we did in class.)

4. Practice Integer Tic Tac Toe!

The Keyword Cipher

Keyword: ORANGE. Keyletter: P.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
I	J	K	L	M	P	Q	S	T	U	V	W	X	Y	Z	O	R	A	N	G	E	B	C	D	F	H

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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