

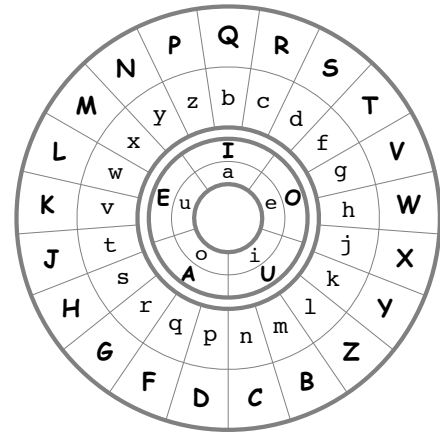
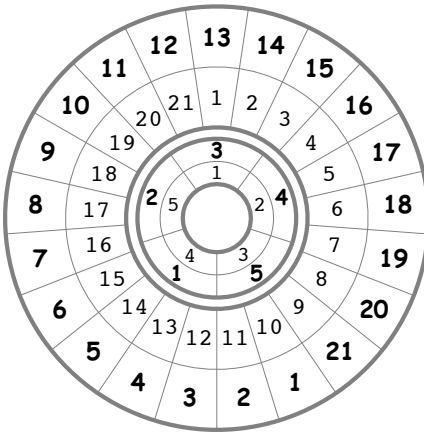
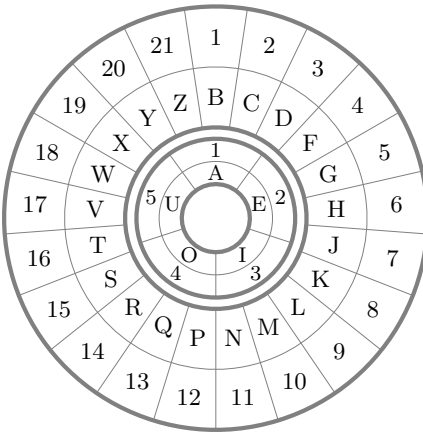
Here is how to encrypt with numbers.

FRONT

Encrypt **subtract** if **too big** using the shift cipher with key 12.

plaintext	s	u	b	t	r	a	c	t		i	f		t	o	o		b	i	g
as numbers	15	5	1	16	14	1	2	16		3	4		16	4	4		1	3	5
add 12	27	17	13	28	26	13	14	28		15	16		28	16	16		13	15	17
sub 21 if cons too big	6		13	7	5		14	7		16	7						13		17
now to letters	H		Q	J	G		R	J		T	J						Q		V
sub 5 if vowel too big		12				8				10				11	11			10	
and again		7				3				5				6	6			5	
and again		2				3				5				1	1			5	
now to letters		E				I				U				A	A			U	
all together!	H	E	Q	J	G	I	R	J		U	T		J	A	A		Q	U	V

So the encrypted message is **HEQJGIRJ UT JAA QUV**.

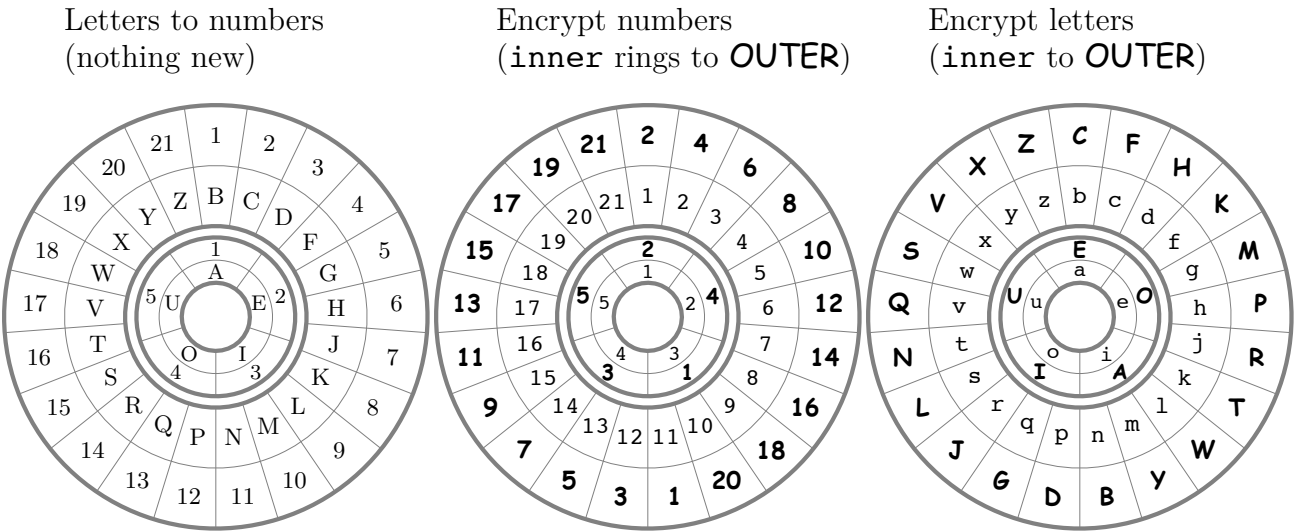


Decrypt “**ISS QIRY JA TUM COVIJUKOH**” using the shift cipher with key 12.

ciphertext	I	S	S		Q	I	R	Y		J	A		T	U	M		C	O	V	I	J	U	K	O	H
as numbers					13												2								
subtract 12					1												-10								
fix numbers					1												11								
to letters					b												n								

Oh no! Your parents have figured out the shift ciphers and are back to reading all your messages. It's time to get **serious=LOJAIUL**. BACK

Look at the following code.



How does it work? (Be ready to explain it to the class.)

Encrypt this message “**twice as secret!**”

plaintext	t	w	i	c	e		a	s		s	e	c	r	e	t	!
as numbers	16															
encrypt...	32															
fix numbers	11															
to letters	N															

Answer:

How do you decrypt?

Decrypt: **HIUCWO EMOBN**