

WORKSHEET 1 ANSWER KEY — THE CAESAR CIPHER

Julius Caesar used a simple substitution cipher to send messages to his troops. He substituted each letter with the letter that was 3 places further along in the alphabet, so that “a” was replaced with “D”, “b” with “E” and so on.

Part I. Complete the table below to show what each letter is enciphered as using this system.

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

Part II. Using the Caesar Cipher, encode the name of your school. Did your partner get the same answer?

Part III. Computer scientists would call 3 the “key” for this cipher. How many different keys are possible?

25

Part IV. Decode this message, which was encoded using the Caesar cipher from the table above:

w	h	a	t		d	o		y	o	u		g	e	t		w	h	e	n		y	o	u	
Z	K	D	W		G	R		B	R	X		J	H	W		Z	K	H	Q		B	R	X	

c	r	o	s	s		a		s	n	o	w	m	a	n		w	i	t	h		a		
F	U	R	V	V		D		V	Q	R	Z	P	D	Q		Z	L	W	K		D		

v	a	m	p	i	r	e	?		f	r	o	s	t	b	i	t	e							
Y	D	P	S	L	U	H	?		I	U	R	V	W	E	L	W	H							