math22

Hints for Assignment 1

Problem 4. Decrypt the following passage which uses a mono-alphabetic code:

E TSWA-EJB-LEFA MAHELSKJNRSP XSLR UKZM JASTRDKZM SN ANNAJLSEH LK LRA QZHH AJGKUIAJL KQ UKZM TEMBAJ. JAWAM CMSLSCSNA RSN CMAELSWA AQQKMLN, KM SJN-SNL KJ TSWSJT RSI ZJNKHSCSLAB EBWSCA. XRAJ RA SN SJ LMKZDHA, DA PMAPEMAB LK RAHP KZL KQ CKZMNA, DZL UKZ NRKZHB MANPACL RSN PMSWECU EL EHH LSIAN. SQ RSN EJSIEH NRKZHB NLMEU, HAL RSI FJKX DU EHH IAEJN, DZL BKJ'L DA WSJBSCLSWA. EWKSB CKJNLEJL DKMMKXSJT. E RKZNARKHBAM SN AJLSLHAB LK MAIKWA EJU KDGACL LREL AJCMKECRAN KJ RSN PMKPAMLU, DZL SL IZNL DA MALZMJAB LK LRA MSTRLQZH KXJAM.

The frequency table is given below:

A	B	C	D	E	F	G	H	I	J	K	L	M
48	13	13	11	23	2	2	18	8	28	35	40	27

N	O	P	Q	R	S	T	U	V	W	X	Y	Z
27	0	8	7	21	39	7	9	0	10	5	0	17

For very long passages of English text, the following frequencies have been observed:

a	b	c	d	e	f	g	h	i	j	k	l	m
8.04%	1.54	3.06	3.99	12.51	2.30	1.96	5.49	7.26	0.16	0.67	4.14	2.53

n	o	p	q	r	s	t	u	v	w	x	y	z
7.09	7.60	2.00	0.11	6.12	6.54	9.25,	2.71	0.99	1.92	0.19	1.73	0.09