

Line	Symbolic Representation of Generated Code			
1	STATS	START	0	{program header}
		EXTREF	XREAD, XWRITE	
		STL	RETADR	{save return address}
		J	{EXADDR}	
	RETADR	RESW	1	
3	SUM	RESW	1	{variable declarations}
	SUMSQ	RESW	1	
	I	RESW	1	
	VALUE	RESW	1	
	MEAN	RESW	1	
	VARIANCE	RESW	1	
5	{EXADDR}	LDA	#0	{SUM := 0}
		STA	SUM	
6		LDA	#0	{SUMSQ := 0}
		STA	SUMSQ	
7		LDA	#1	{FOR I := 1 TO 100}
	{L1}	STA	I	
		COMP	#100	
		JGT	{L2}	
9		+JSUB	XREAD	{READ(VALUE)}
		WORD	1	
		WORD	VALUE	
10		LDA	SUM	{SUM := SUM + VALUE}
		ADD	VALUE	
		STA	SUM	
11		LDA	VALUE	{SUMSQ := SUMSQ + VALUE * VALUE}
		MUL	VALUE	
		ADD	SUMSQ	
		STA	SUMSQ	
		LDA	I	{end of FOR loop}
		ADD	#1	
		J	{L1}	
13	{L2}	LDA	SUM	{MEAN := SUM DIV 100}
		DIV	#100	
		STA	MEAN	
14		LDA	SUMSQ	{VARIANCE := SUMSQ DIV 100 - MEAN * MEAN}
		DIV	#100	
		STA	T1	
		LDA	MEAN	
		MUL	MEAN	
		STA	T2	
		LDA	T1	
		SUB	T2	
		STA	VARIANCE	
15		+JSUB	XWRITE	{WRITE(MEAN, VARIANCE)}
		WORD	2	
		WORD	MEAN	
		WORD	VARIANCE	
		LDL	RETADR	{return}
		RSUB		
	T1	RESW	1	{working variables used}
	T2	RESW	1	
		END		

Figure 5.21 Symbolic representation of object code generated for the program from Fig. 5.1.