

11 The table shows assembly language instructions for a processor that has one register, the Accumulator (ACC).

Label	Instruction		Explanation
	Opcode	Operand	
	LDM	#n	Load the number n to ACC
	LDD	<address>	Load the contents of the location at the given address to the ACC
	LDI	<address>	The address to be used is at the given address. Load the contents of this second address to the ACC
	ADD	<address>	Add the contents of the given address to the ACC
	SUB	<address>	Subtract the contents of the given address from the ACC
	STO	<address>	Store the contents of the ACC at the given address
<label>:		<data>	Gives a symbolic address <label> to the memory location with contents <data>
# denotes a denary number, e.g. #123 <label> can be used in place of <address>			

(a) Write **assembly language** code, using **only** the given instruction set to:

- store the denary value 100 as a named constant
- subtract the constant from the value contained in address 632
- store the result in variable `Answer`.

Show the initialisation of the constant and `Answer` in the table provided.

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Label	Contents

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(b) The address 632 contains the value 45.

State the value of `Answer` after the code described in part (a) has executed.