Consider the following Pep/9 machine language program as it appears when loaded to memory starting at location 0000. In the lower table, show the effect of every step in the vonNeumann execution cycle for all instructions until stopping (use as many rows as needed), including updates to memory, which can be shown in the upper table. Note that the initial values for CPU registers are provided on the first row; use them.

```
0000 | D1 00 07 E1
0004 | 00 08 00 AB
0008 | CD EF 00 00
```

	PC	IR	SP	A	X	NZVC
Start program	0000	00 0000	FBCF	0000	0000	0100

Fetch instruction						
Increment PC						
Decode	—	—	—	—	—	—
Fetch, *if non-unary*						
Increment PC, *if non-unary*						
Execute						

Fetch instruction						
Increment PC						
Decode	—	—	—	—	—	—
Fetch, *if non-unary*						
Increment PC, *if non-unary*						
Execute						

Fetch instruction						
Increment PC						
Decode	—	—	—	—	—	—
Fetch, *if non-unary*						
Increment PC, *if non-unary*						
Execute						

Fetch instruction						
Increment PC						
Decode	—	—	—	—	—	—
Fetch, *if non-unary*						
Increment PC, *if non-unary*						
Execute						