```
0000000000000111   0 start:  lodd daddr:
1111010000000000   1         push  ; push data adr
0000000000001101   2         lodd dcnt:
1111010000000000   3         push  ; push data cnt
1110000000010100   4         call adder:
0001000000001110   5         stod rslt:
1111111100000000   6         halt
0000000000001000   7 daddr:  data: ; or ➔ 8
0000000000011001   8 data:   25
0000000000110010   9         50
0000000001001011  10         75
0000000001100100  11         100
0000000001111101  12         125
0000000000000101  13 dcnt:   5
0000000000000000  14 rslt:   0
1111111111111111  15         -1
1111111111111111  16         -1
1111111111111111  17         -1
1111111111111111  18         -1
1111111111111111  19         -1
```

```
 0 start:  lodd daddr:
 1         push
 2         lodd dcnt:
 3         push
 4         call adder:
 5         stod rslt:
 6         halt
 7 daddr:  data:
 8 data:   25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

PC	0
AC	0
SP	1024

	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
1024	-1	← SP

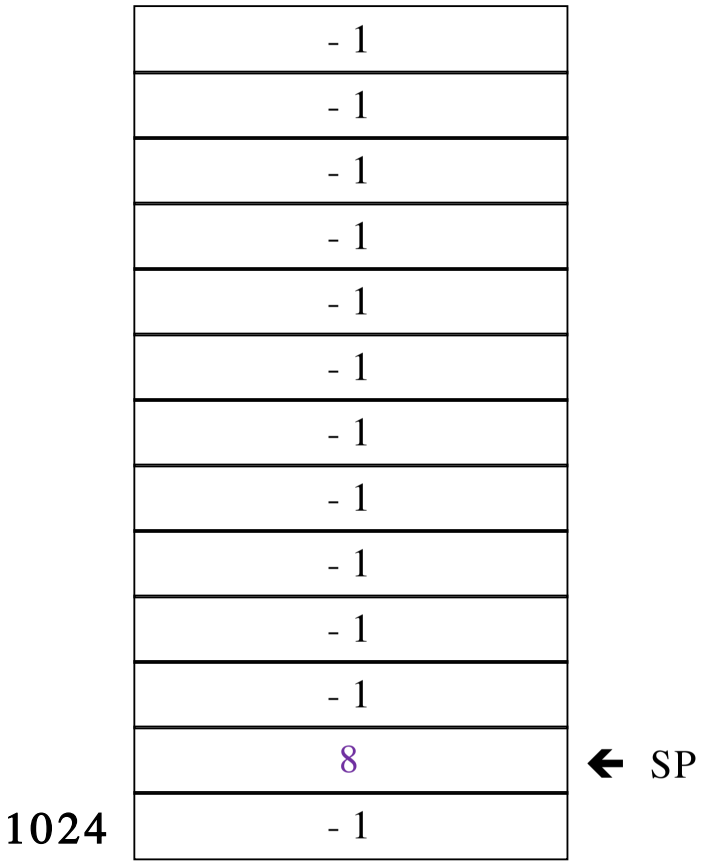
```
 0 start:  lodd daddr:
 1         push
 2         lodd dcnt:
 3         push
 4         call adder:
 5         stod rslt:
 6         halt
 7 daddr:  data:
 8 data:   25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

PC	1
AC	8
SP	1024

	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
	-1	
1024	-1	← SP

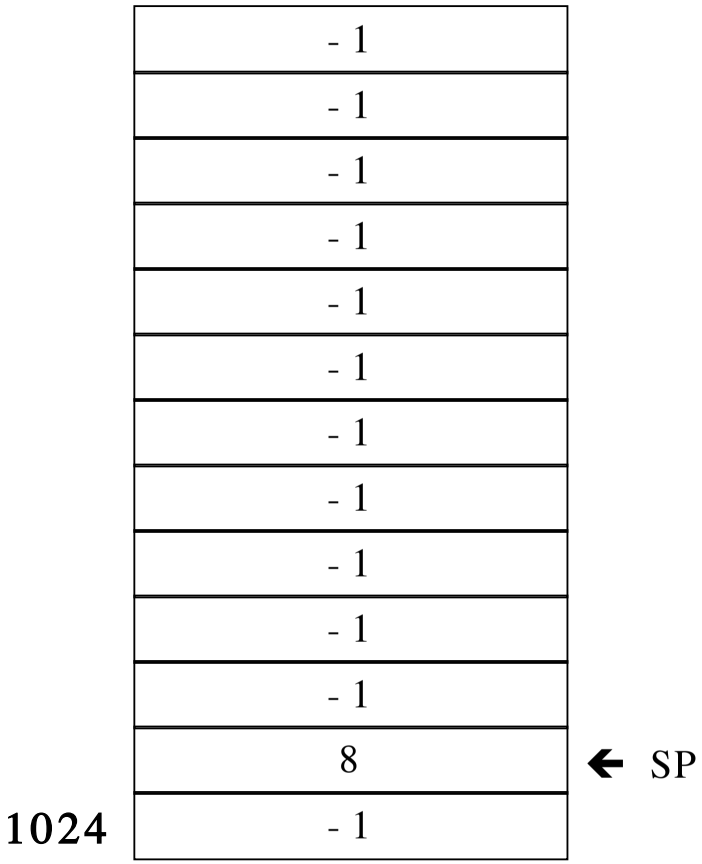
```
 0 start:  lodd daddr:
 1         push
 2         lodd dcnt:
 3         push
 4         call adder:
 5         stod rslt:
 6         halt
 7 daddr:  data:
 8 data:   25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

PC	2
AC	8
SP	1023



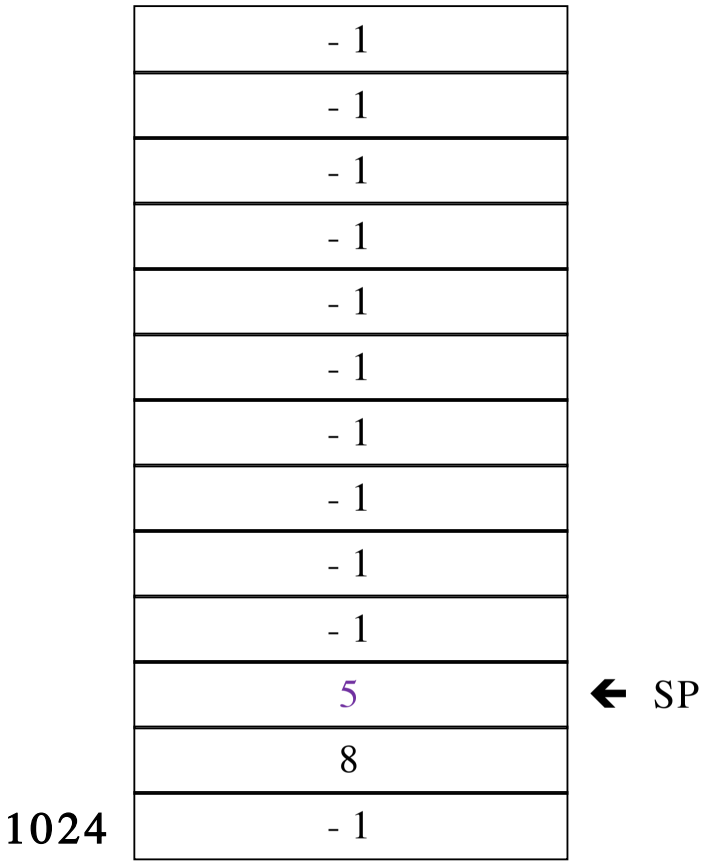
```
 0 start:  lodd daddr:
 1         push
 2         lodd dcnt:
 3         push
 4         call adder:
 5         stod rslt:
 6         halt
 7 daddr:  data:
 8 data:   25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

PC	3
AC	5
SP	1023



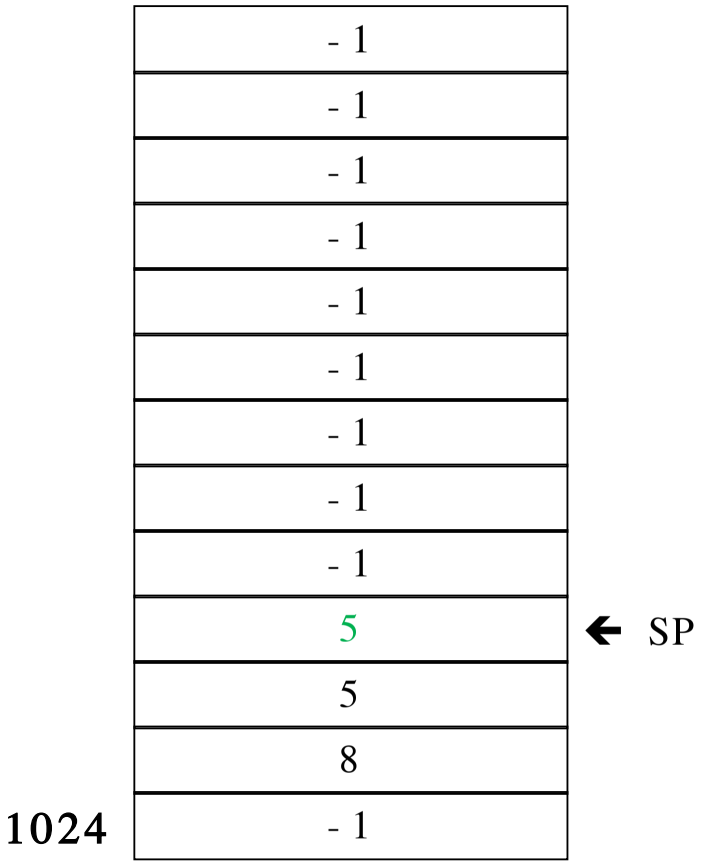
```
 0 start:  lodd daddr:
 1         push
 2         lodd dcnt:
 3         push
 4         call adder:
 5         stod rslt:
 6         halt
 7 daddr:  data:
 8 data:   25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

PC	4
AC	5
SP	1022



```
 0 start:  lodd daddr:
 1         push
 2         lodd dcnt:
 3         push
 4         call adder:
 5         stod rslt:
 6         halt
 7 daddr:  data:
 8 data:   25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

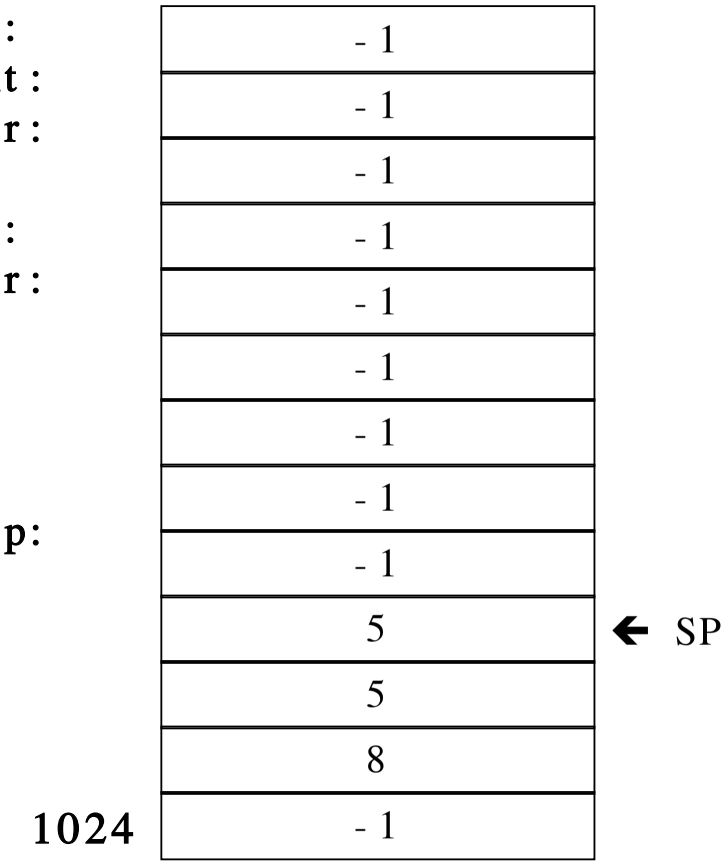
PC	5 → 20
AC	5
SP	1021



```
1000000000000001  20 adder:   lodl  1
0001000000101010  21          stod  mycnt:
1000000000000010  22          lodl  2
1111000000000000  23          pshi
0010000000101100  24          addd  myc1:
0001000000101011  25          stod  myptr:
0000000000101010  26 loop:    lodd  mycnt:
0011000000101100  27          subd  myc1:
0101000000100111  28          jzer  done:
0001000000101010  29          stod  mycnt:
0000000000101011  30          lodd  myptr:
1111000000000000  31          pshi
0010000000101100  32          addd  myc1:
0001000000101011  33          stod  myptr:
1111011000000000  34          pop
1010000000000000  35          addl  0
1111110000000001  36          insp  1
1111010000000000  37          push
0110000000011010  38          jump   loop:
1111011000000000  39 done:    pop
1111100000000000  40          retn
1111111100000000  41          halt
0000000000000000  42 mycnt:   0
0000000000000000  43 myptr:   0
0000000000000001  44 myc1:    1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump   loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0
43 myptr:   0
44 myc1:    1
```

PC	20
AC	5
SP	1021



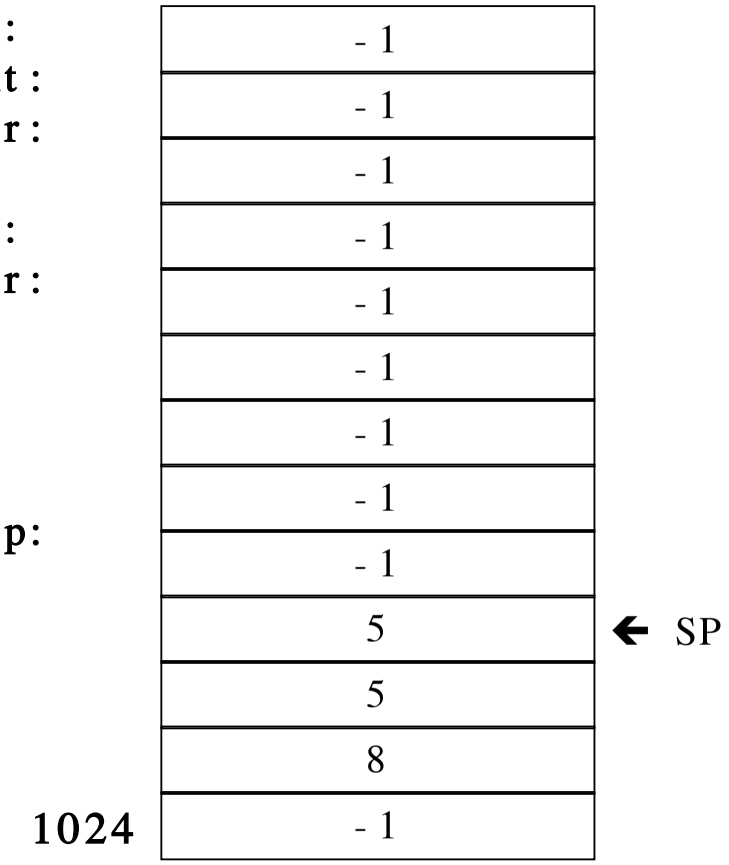
```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump   loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0
43 myptr:   0
44 myc1:    1
```

PC	21
AC	5
SP	1021

	-1
	-1
	-1
	-1
	-1
	-1
	-1
	-1
	-1
5	← SP
5	SP+1
8	
1024 -1	

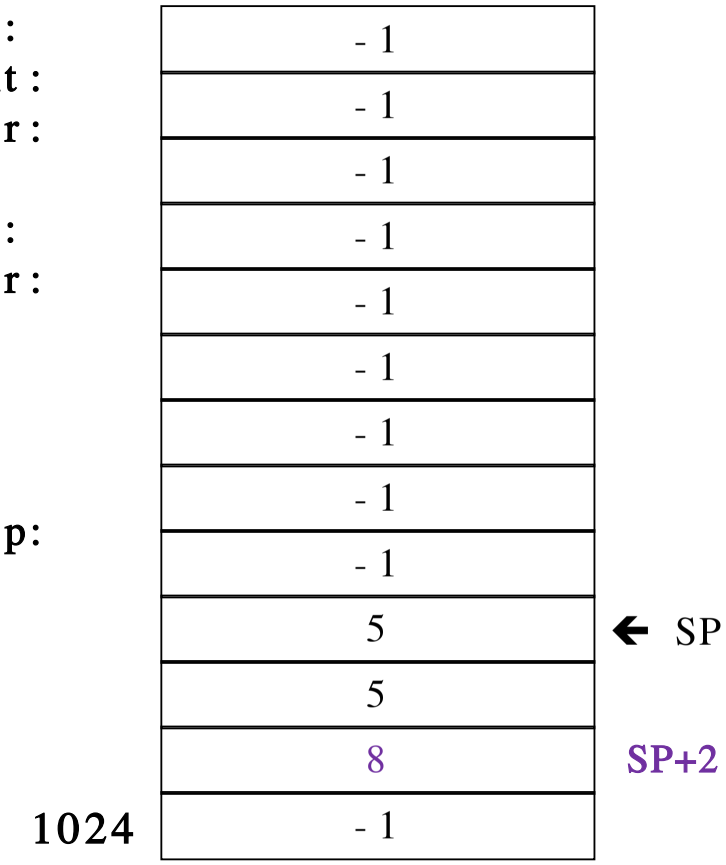
```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump   loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔   5
43 myptr:   0
44 myc1:    1
```

PC	22
AC	5
SP	1021



```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump   loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔   5
43 myptr:   0
44 myc1:    1
```

PC	23
AC	8
SP	1021



```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  5
43 myptr:   0
44 myc1:    1
```

PC	24
AC	8
SP	1020

	-1
	-1
	-1
	-1
	-1
	-1
	-1
	-1
← SP	25
	5
	5
	8
1024	-1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  5
43 myptr:   0
44 myc1:    1
```

PC	25
AC	9
SP	1020

	-1
	-1
	-1
	-1
	-1
	-1
	-1
	-1
← SP	25
	5
	5
	8
1024	-1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  5
43 myptr:   0 ➔  9
44 myc1:    1
```

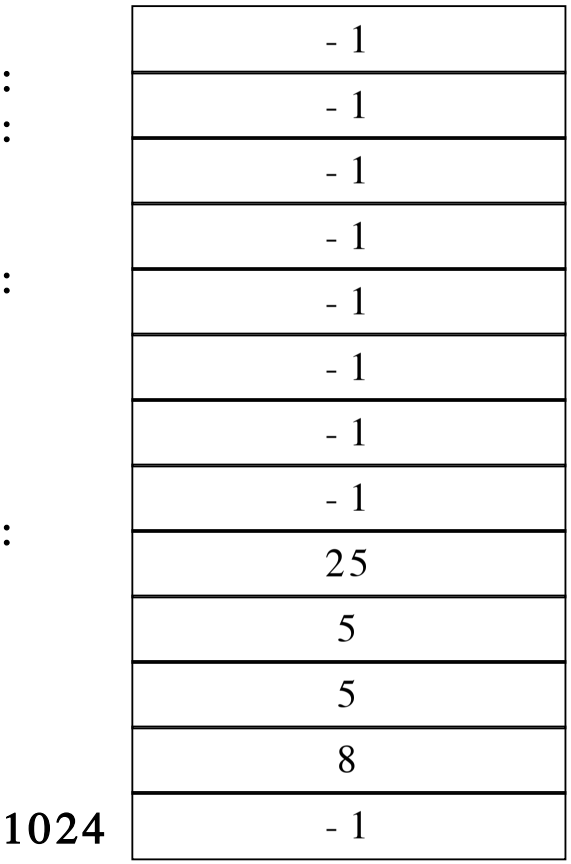
PC	26
AC	9
SP	1020

	-1
	-1
	-1
	-1
	-1
	-1
	-1
	-1
← SP	25
	5
	5
	8
1024	-1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  5
43 myptr:   0 ➔  9
44 myc1:    1
```

PC	27
AC	5
SP	1020




```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  5
43 myptr:   0 ➔  9
44 myc1:    1
```

PC	28
AC	4
SP	1020

- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
25	← SP
5	
5	
8	
- 1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         - 1
16         - 1
17         - 1
18         - 1
19         - 1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  5
43 myptr:   0 ➔  9
44 myc1:    1
```

PC	29
AC	4
SP	1020

- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
25	← SP
5	
5	
8	
- 1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         - 1
16         - 1
17         - 1
18         - 1
19         - 1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔ 4
43 myptr:   0 ➔ 9
44 myc1:    1
```

PC	30
AC	4
SP	1020

1024	-1
	-1
	-1
	-1
	-1
	-1
	-1
	-1
	-1
← SP	25
	5
	5
	8
	-1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  4
43 myptr:   0 ➔  9
44 myc1:    1
```

PC	31
AC	9
SP	1020

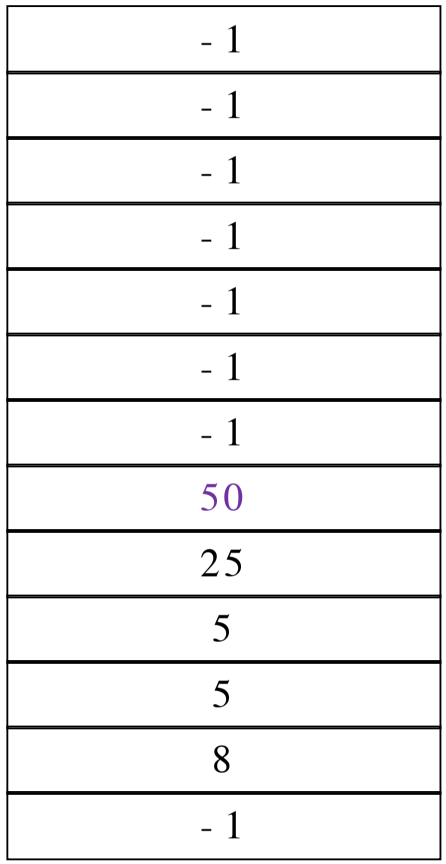
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
25	← SP
5	
5	
8	
- 1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         - 1
16         - 1
17         - 1
18         - 1
19         - 1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  4
43 myptr:   0 ➔  9
44 myc1:    1
```

PC	32
AC	9
SP	1019




```
 0 start:  lodd daddr:
 1         push
 2         lodd dcnt:
 3         push
 4         call adder:
 5         stod rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  4
43 myptr:   0 ➔  9
44 myc1:    1
```

PC	33
AC	10
SP	1019

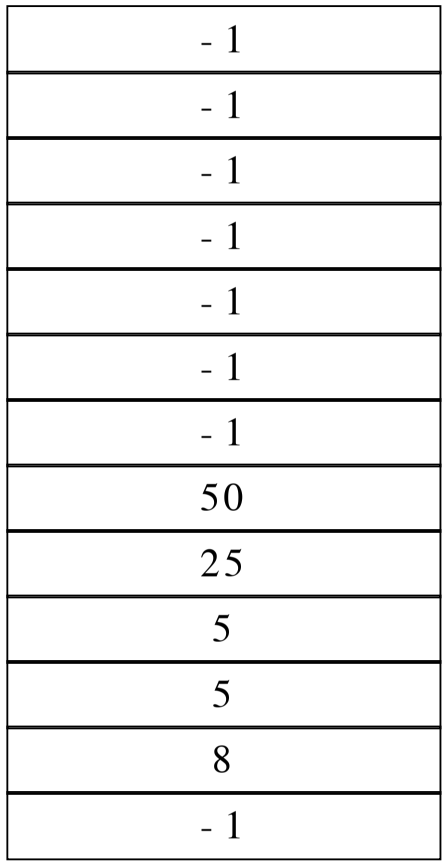
-1	
-1	
-1	
-1	
-1	
-1	
-1	
50	← SP
25	
5	
5	
8	
-1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  4
43 myptr:   0 ➔  10
44 myc1:    1
```

PC	34
AC	10
SP	1019

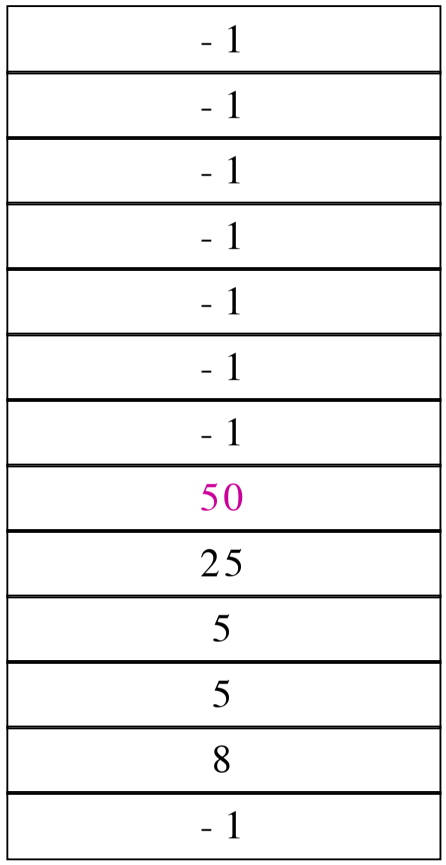


← SP

```
 0 start:  lodd daddr:
 1         push
 2         lodd dcnt:
 3         push
 4         call adder:
 5         stod rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  4
43 myptr:   0 ➔  10
44 myc1:    1
```

PC	35
AC	50
SP	1020




```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  4
43 myptr:   0 ➔  10
44 myc1:    1
```

PC	36
AC	75 ← 50 + 25
SP	1020

- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
50	
25	← SP
5	
5	
8	
- 1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         - 1
16         - 1
17         - 1
18         - 1
19         - 1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  4
43 myptr:   0 ➔  10
44 myc1:    1
```

PC	37
AC	75
SP	1021

- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
50	
25	
5	← SP
5	
8	
- 1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         - 1
16         - 1
17         - 1
18         - 1
19         - 1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  4
43 myptr:   0 ➔  10
44 myc1:    1
```

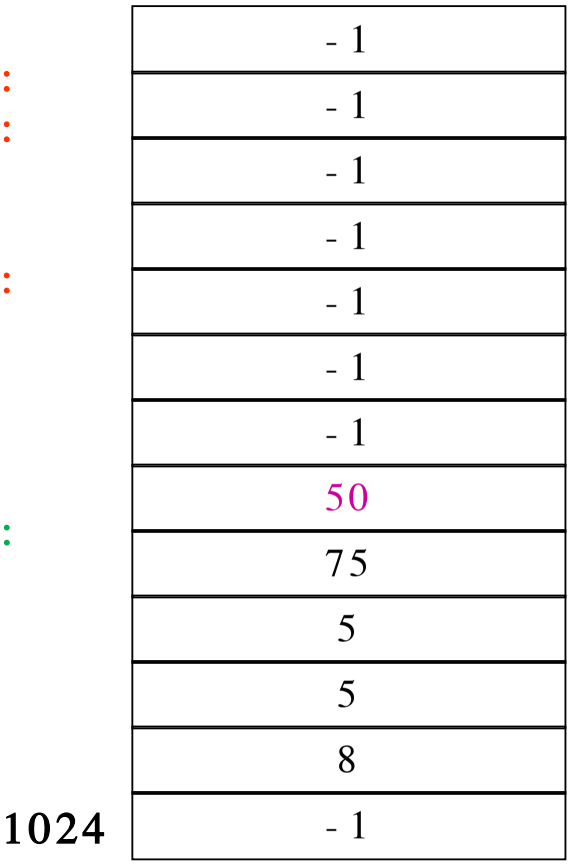
PC	38
AC	75
SP	1020

	-1
	-1
	-1
	-1
	-1
	-1
	-1
	50
← SP	75
	5
	5
	8
1024	-1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  4
43 myptr:   0 ➔  10
44 myc1:    1
```

PC	39 ➔ 26
AC	75
SP	1020




```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔ 4
43 myptr:   0 ➔ 10
44 myc1:    1
```

PC	27
AC	4
SP	1020

- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
50	
75	← SP
5	
5	
8	
- 1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         - 1
16         - 1
17         - 1
18         - 1
19         - 1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  4
43 myptr:   0 ➔  10
44 myc1:    1
```

PC	28
AC	3
SP	1020

- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
50	
75	← SP
5	
5	
8	
- 1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         - 1
16         - 1
17         - 1
18         - 1
19         - 1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  4
43 myptr:   0 ➔  10
44 myc1:    1
```

PC	29
AC	3
SP	1020

- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
50	
75	← SP
5	
5	
8	
- 1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         - 1
16         - 1
17         - 1
18         - 1
19         - 1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔ 3
43 myptr:   0 ➔ 10
44 myc1:    1
```

PC	30
AC	3
SP	1020

- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
50	
75	← SP
5	
5	
8	
- 1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         - 1
16         - 1
17         - 1
18         - 1
19         - 1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  3
43 myptr:   0 ➔  10
44 myc1:    1
```

PC	31
AC	10
SP	1020

- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
- 1	
50	
75	← SP
5	
5	
8	
- 1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         - 1
16         - 1
17         - 1
18         - 1
19         - 1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  3
43 myptr:   0 ➔  10
44 myc1:    1
```

PC	32
AC	10
SP	1019

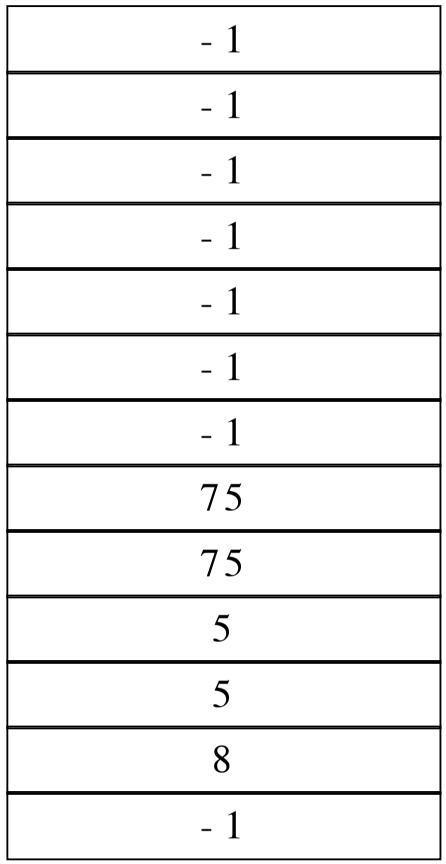
-1	
-1	
-1	
-1	
-1	
-1	
-1	
75	← SP
75	
5	
5	
8	
-1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:  5
14 rslt:  0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  3
43 myptr:   0 ➔  10
44 myc1:    1
```

PC	33
AC	11
SP	1019




```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  3
43 myptr:   0 ➔  11
44 myc1:    1
```

PC	34
AC	11
SP	1019

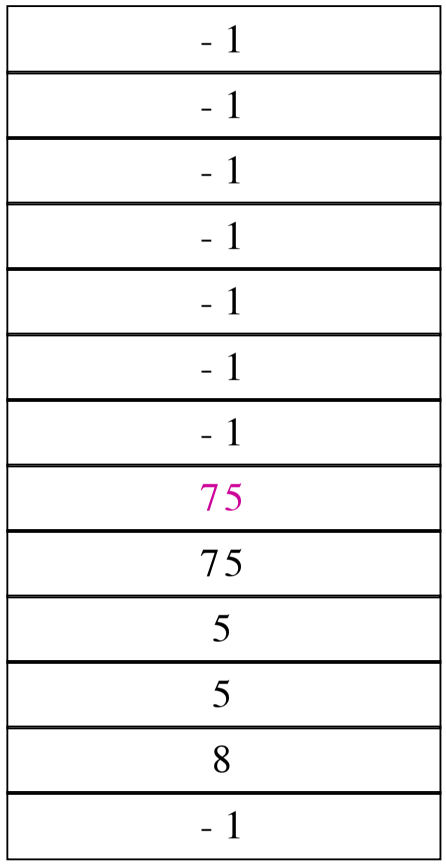
-1	
-1	
-1	
-1	
-1	
-1	
-1	
75	← SP
75	
5	
5	
8	
-1	

1024

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  3
43 myptr:   0 ➔  11
44 myc1:    1
```

PC	35
AC	75
SP	1020




```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔ 3
43 myptr:   0 ➔ 11
44 myc1:    1
```

PC	36
AC	150 ← 75 + 75
SP	1020

	-1
	-1
	-1
	-1
	-1
	-1
	-1
	75
← SP	75
	5
	5
	8
1024	-1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  3
43 myptr:   0 ➔  11
44 myc1:    1
```

PC	37
AC	150
SP	1021

	-1
	-1
	-1
	-1
	-1
	-1
	-1
	75
	75
← SP	5
	5
	8
1024	-1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  3
43 myptr:   0 ➔  11
44 myc1:    1
```

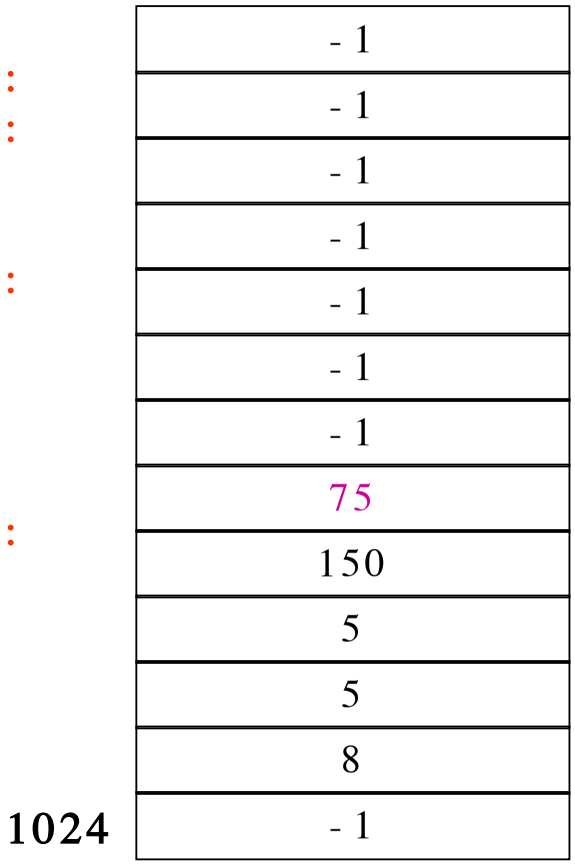
PC	38
AC	150
SP	1020

	-1
	-1
	-1
	-1
	-1
	-1
	-1
	75
← SP	150
	5
	5
	8
1024	-1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  3
43 myptr:   0 ➔  11
44 myc1:    1
```

PC	39 ➔ 26
AC	150
SP	1020




```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  3
43 myptr:   0 ➔  11
44 myc1:    1
```

PC	27
AC	3
SP	1020

	-1
	-1
	-1
	-1
	-1
	-1
	-1
	75
← SP	150
	5
	5
	8
1024	-1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔ 1
43 myptr:   0 ➔ 12
44 myc1:    1
```

AFTER 2 MORE ITERATIONS:

PC	27
AC	1
SP	1020

	-1
	-1
	-1
	-1
	-1
	-1
	-1
	125
← SP	375
	5
	5
	8
1024	-1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  0
43 myptr:   0 ➔  12
44 myc1:    1
```

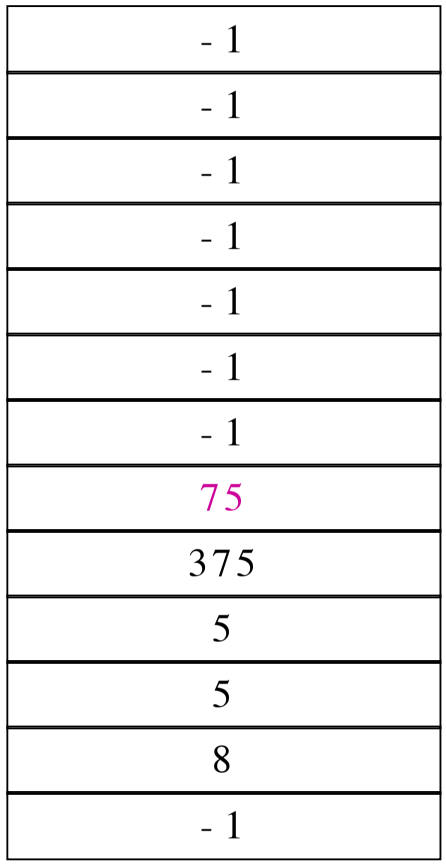
PC	28
AC	0
SP	1020

	-1
	-1
	-1
	-1
	-1
	-1
	-1
	125
← SP	375
	5
	5
	8
1024	-1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  1
43 myptr:   0 ➔  12
44 myc1:    1
```

PC	29 ➔ 39
AC	0
SP	1020




```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  1
43 myptr:   0 ➔  12
44 myc1:    1
```

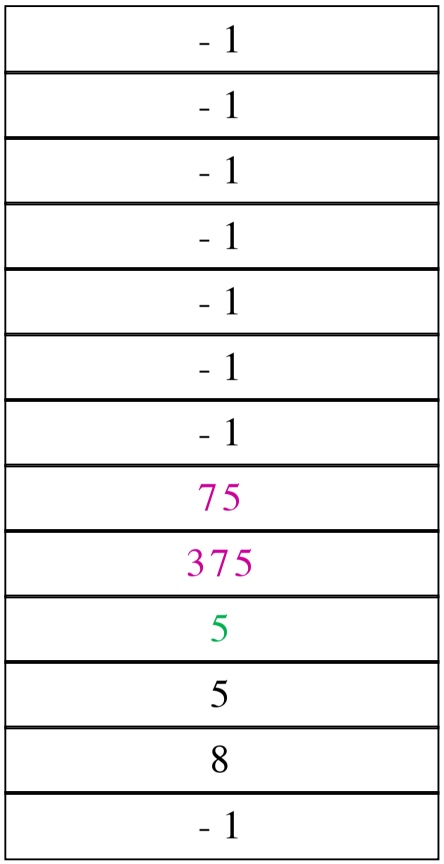
PC	40
AC	375
SP	1021

1024	- 1
	- 1
	- 1
	- 1
	- 1
	- 1
	- 1
	75
	375
← SP	5
	5
	8
	- 1

```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         - 1
16         - 1
17         - 1
18         - 1
19         - 1
```

```
20 adder:   lodl  1
21          stod  mycnt:
22          lodl  2
23          pshi
24          addd  myc1:
25          stod  myptr:
26 loop:    lodd  mycnt:
27          subd  myc1:
28          jzer  done:
29          stod  mycnt:
30          lodd  myptr:
31          pshi
32          addd  myc1:
33          stod  myptr:
34          pop
35          addl  0
36          insp  1
37          push
38          jump  loop:
39 done:    pop
40          retn
41          halt
42 mycnt:   0 ➔  1
43 myptr:   0 ➔  12
44 myc1:    1
```

PC	41 ➔ 5
AC	375
SP	1022




```
 0 start:  lodd  daddr:
 1         push
 2         lodd  dcnt:
 3         push
 4         call  adder:
 5         stod  rslt:
 6         halt
 7 daddr:  8
 8         25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0
15         -1
16         -1
17         -1
18         -1
19         -1
```

```
 0 start:  lodd daddr:
 1         push
 2         lodd dcnt:
 3         push
 4         call adder:
 5         stod rslt:
 6         halt
 7 daddr:  data:
 8 data:   25
 9         50
10         75
11         100
12         125
13 dcnt:   5
14 rslt:   0  ➔ 375
15         -1
16         -1
17         -1
18         -1
19         -1
```

PC	6
AC	375
SP	1022