Here is the state of addresses `0x7fa586401790` through `0x7fa58640182f`. Our machine is little endian with 8 byte pointers:

Address	Value
0x7fa586401790	0x7fa5864017c8
0x7fa586401798	0x7fa5864017d8
0x7fa5864017a0	0x7fa5864017c0
0x7fa5864017a8	0x7fa586401810
0x7fa5864017b0	0x7fa586401790
0x7fa5864017b8	0x7fa5864017e0
0x7fa5864017c0	0x7fa586401828
0x7fa5864017c8	0x7fa5864017c0
0x7fa5864017d0	0x7fa5864017c0
0x7fa5864017d8	0x7fa5864017f8
0x7fa5864017e0	0x7fa5864017a8
0x7fa5864017e8	0x7fa5864017b0
0x7fa5864017f0	0x7fa586401800
0x7fa5864017f8	0x7fa5864017d0
0x7fa586401800	0x7fa5864017d0
0x7fa586401808	0x7fa586401800
0x7fa586401810	0x7fa5864017a0
0x7fa586401818	0x7fa5864017d0
0x7fa586401820	0x7fa586401810
0x7fa586401828	0x7fa5864017f8

Here is a procedure, **pm**():

```
void pm(unsigned long *p)
{
  unsigned long **q;
  unsigned long ***r;
  unsigned long  ****s;

  q = (unsigned long **) p;
  r = (unsigned long ***) p;
  s = (unsigned long ****) p;

  printf("0x%02lx\n", (*p) & 0xff);                    /* Line 1 of output. */
  printf("0x%02lx\n", (**q) & 0xff);                   /* Line 2 of output. */
  printf("0x%02lx\n", (***r) & 0xff);                  /* Line 3 of output. */
  printf("0x%02lx\n", (****s) & 0xff);                 /* Line 4 of output. */

  printf("0x%02lx\n", (p[1]) & 0xff);                  /* Line 5 of output. */
  printf("0x%02lx\n", (q[1][1]) & 0xff);               /* Line 6 of output. */
}
```

Suppose **pm**() is called with **p** equal to `0x7fa586401790`:

- **Question 1**: What is the first line of output?
- **Question 2**: What is the second line of output?
- **Question 3**: What is the third line of output?
- **Question 4**: What is the fourth line of output?
- **Question 5**: What is the fifth line of output?
- **Question 6**: What is the sixth line of output?

Answer to Clicker Questions

Fortunately, the answers to lines 1-4 and lines 5-6 build on each other.

```
   p is 0x7fa586401790, so    *p is the value at that address: 0x7fa5864017c8.  The answer is 0xc8.
  *q is 0x7fa5864017c8, so   **q is the value at that address: 0x7fa5864017c0.  The answer is 0xc0.
 **r is 0x7fa5864017c0, so  ***r is the value at that address: 0x7fa586401828.  The answer is 0x28.
***s is 0x7fa586401828, so ****s is the value at that address: 0x7fa5864017f8.  The answer is 0xf8.

      p+1 is 0x7fa586401798, so p[1] is the value at that address:           0x7fa5864017d8.  The answer is 0xd8.
     q[1] is 0x7fa5864017d8, so q[1][1] is the value at      0x7fa5864017e0: 0x7fa5864017a8.  The answer is 0xa8.
```