

Memory Explore

(gdb) **list 1,12**

```
1  int main(void) {
2      char greeting[26] = "Are you not entertained?\n";
3      int num1 = 48;
4      int num2 = 0x1204;
5      int num3 = num1 + num2;
6      int *ptr = &num1;
7
8      *ptr -= 15;
9      num2 += num1--;
10
11     return 0;
12 }
```

Given the following 64-bit GDB output, circle and label the following variables in the memory dump:
greeting[], num1, num2, num3, ptr

(gdb) **break 11**

Breakpoint 1 at 0x400555: file Memory Explore.c, line 11.

(gdb) **run**

Starting program: Memory Explore

Breakpoint 1, main () at Memory Explore.c:11

```
11     return 0;
```

(gdb) **x/64xb \$rbp-64**

0x7fffffff500:	0x01	0x00	0x00	0x00	0x00	0x00	0x00	0x00
0x7fffffff508:	0xad	0x05	0x40	0x00	0x20	0x00	0x00	0x00
0x7fffffff510:	0x41	0x72	0x65	0x20	0x79	0x6f	0x75	0x20
0x7fffffff518:	0x6e	0x6f	0x74	0x20	0x65	0x6e	0x74	0x65
0x7fffffff520:	0x72	0x74	0x61	0x69	0x6e	0x65	0x64	0x3f
0x7fffffff528:	0x0a	0x00	0x40	0x00	0x00	0x00	0x00	0x00
0x7fffffff530:	0x0c	0xe5	0xff	0xff	0xff	0x7f	0x00	0x00
0x7fffffff538:	0x34	0x12	0x00	0x00	0x25	0x12	0x00	0x00