

POINTERS & DYNAMIC MEMORY ALLOCATION

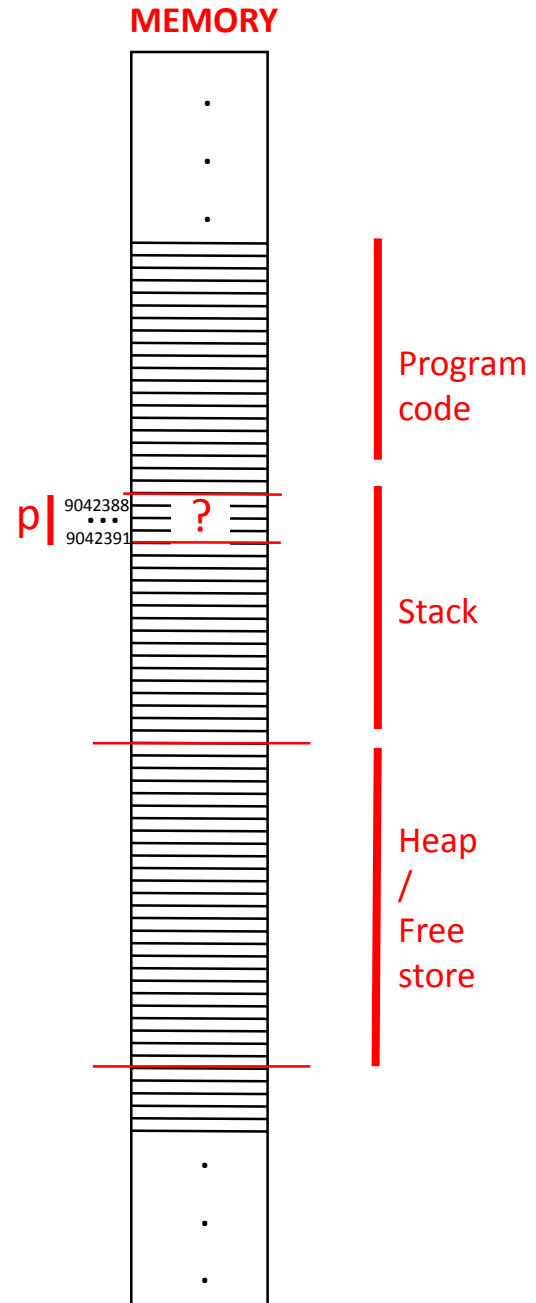
```
#include <iostream>
#include <cstdlib>
using namespace std;

void main(void)
{
    int *p;
    cout << (long)&p << endl;
    cout << p << endl;

    p = (int*)malloc(3 * sizeof(int));
    cout << (long)p << endl;

    *p = 10;
    p[1] = 17;
    *(p + 2) = 23;
    for (size_t i = 0; i < 3; i++) cout << p[i] << endl;

    free(p);
    cout << (long)p << endl;
    for (size_t i = 0; i < 3; i++) cout << p[i] << endl;
}
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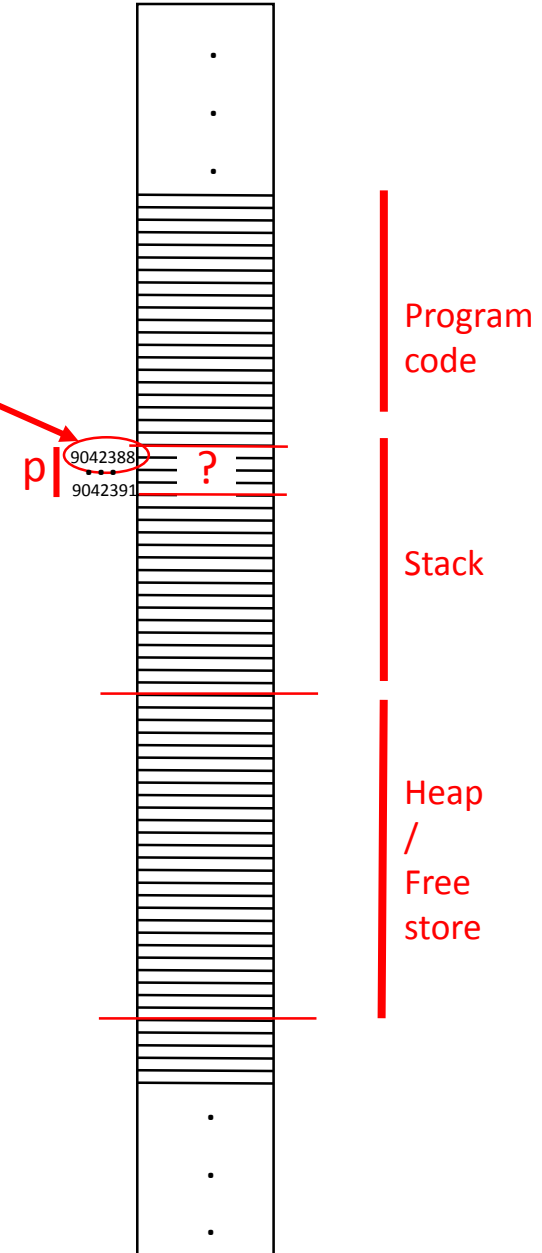
    *p = 10;
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}
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PROGRAM OUTPUT

```
C:\>
9042388
CCCCCCCC
10604760
10
17
23
10604760
-572662307
-572662307
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```

MEMORY



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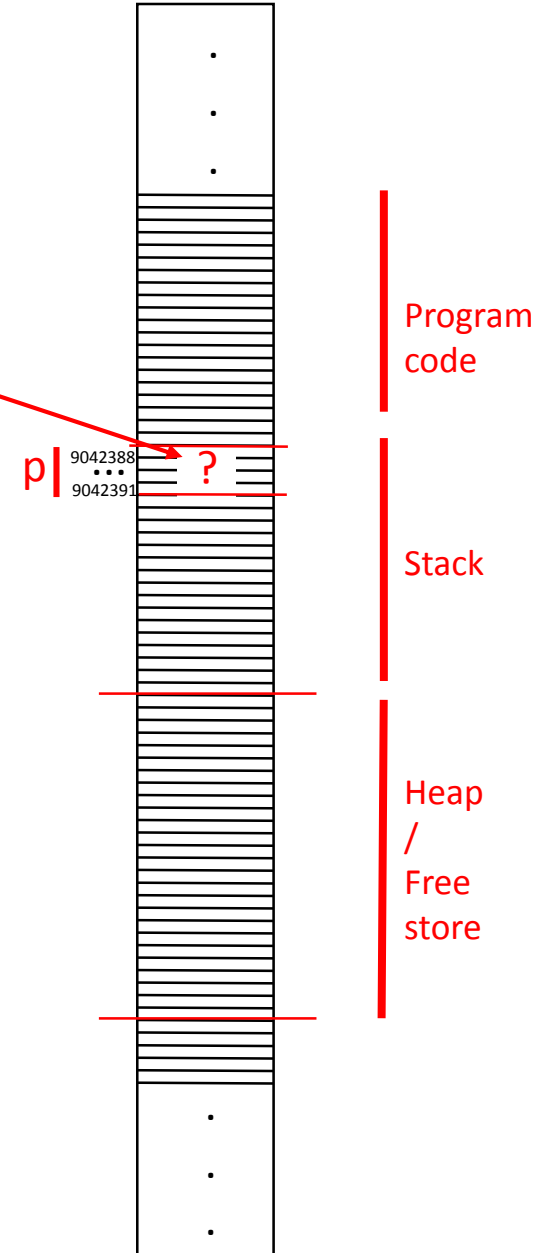
    free(p);
    cout << (long)p << endl;
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hexadecimal

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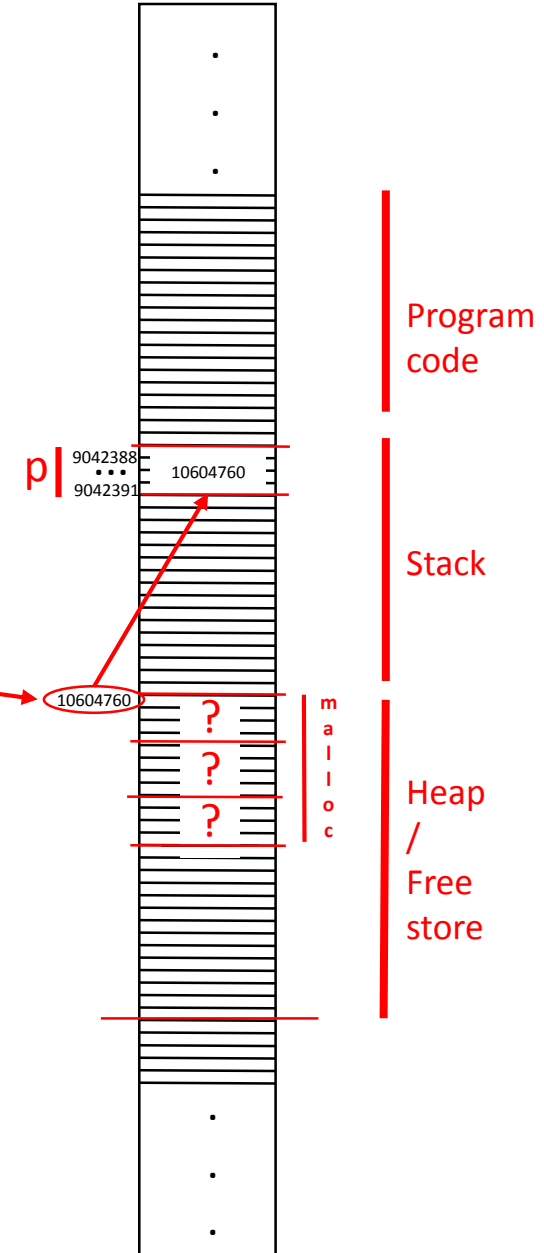
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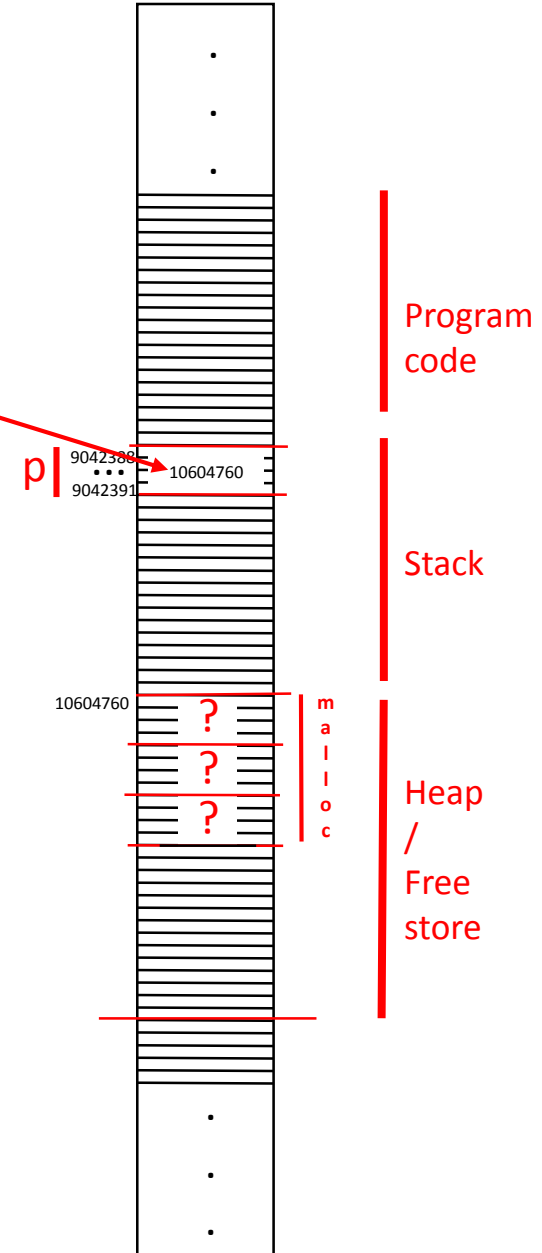
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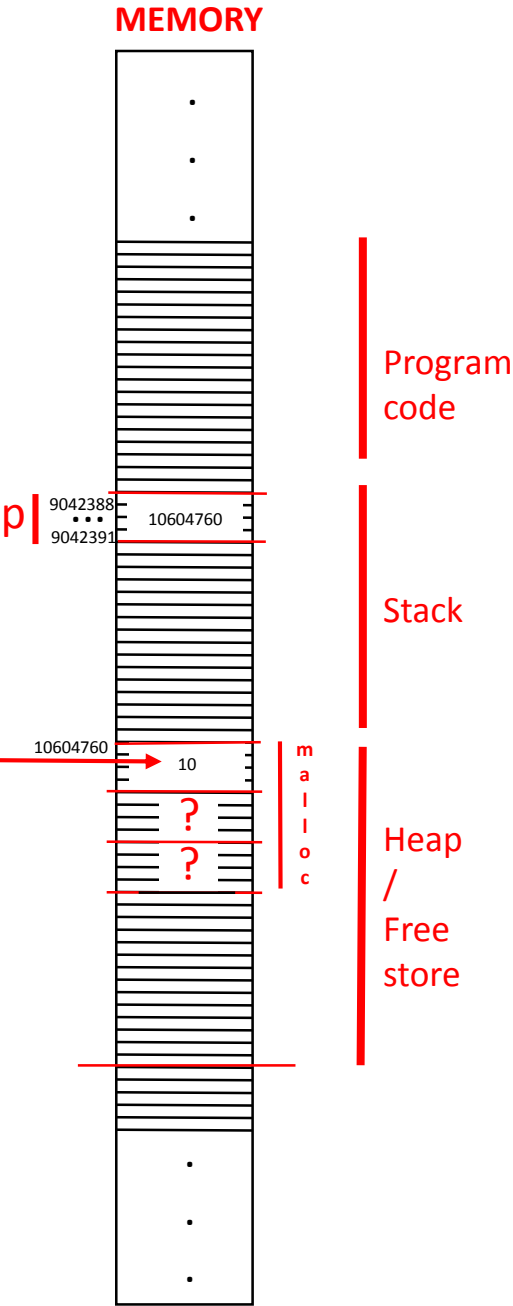
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    cout << (long)p << endl;

    *p = 10;
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    for (size_t i = 0; i < 3; i++) cout << p[i] << endl;

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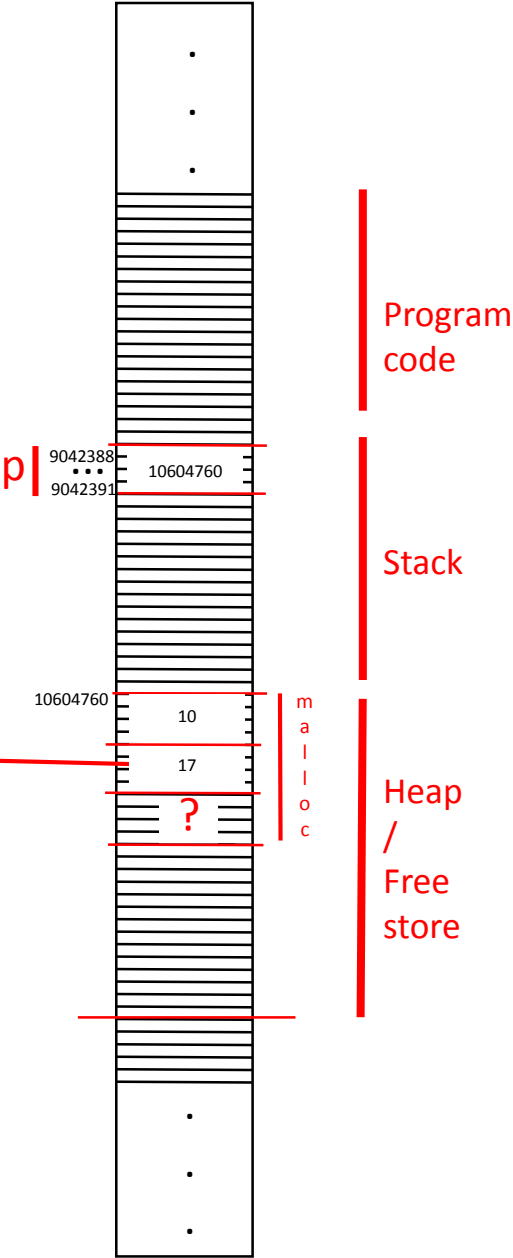
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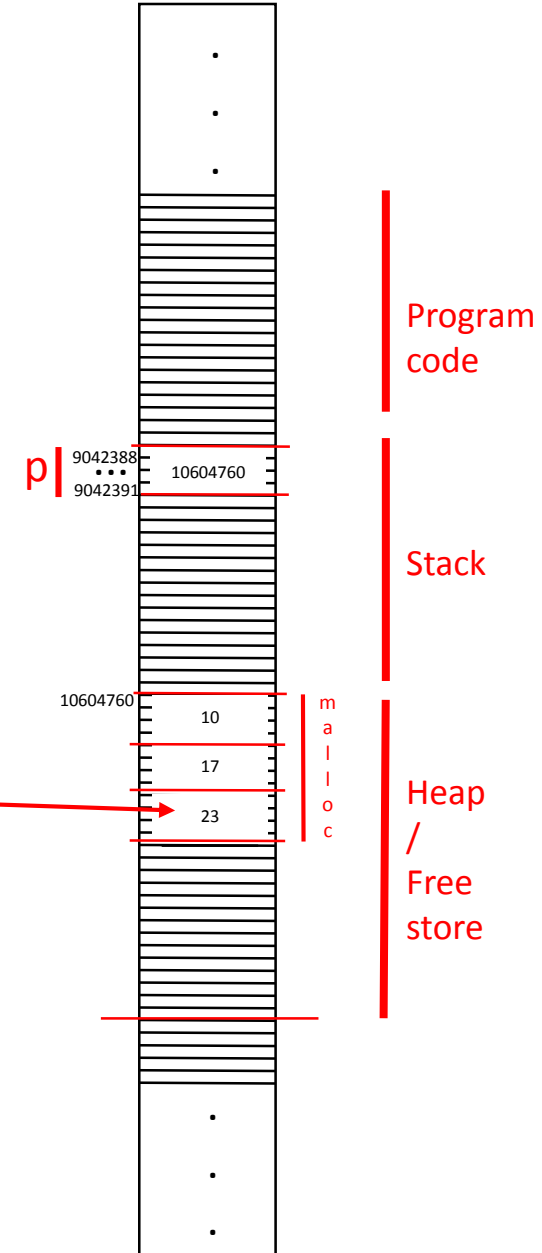
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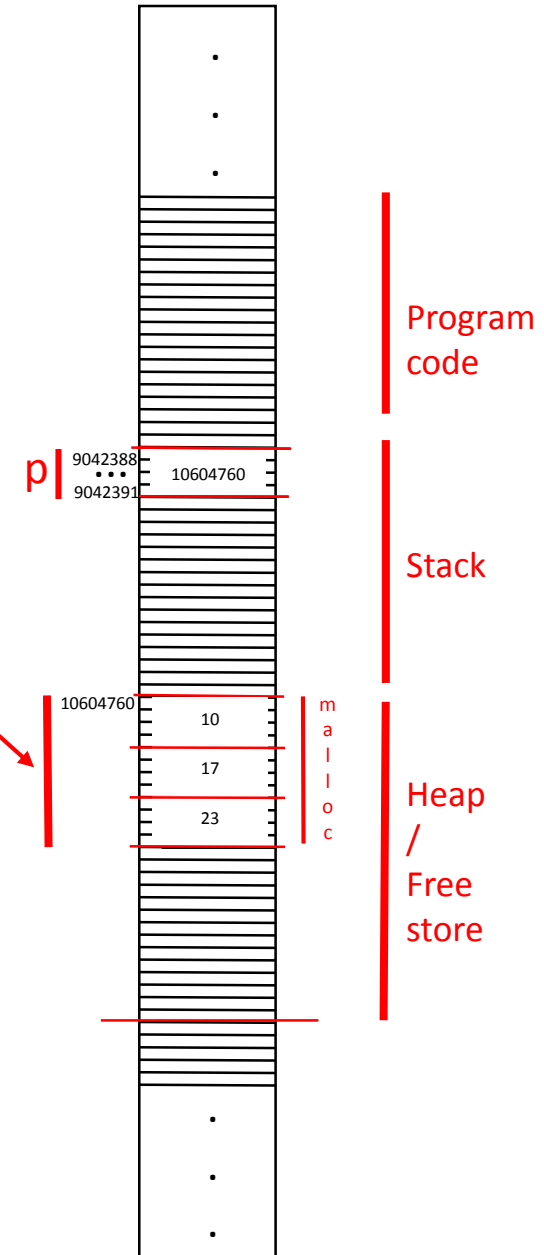
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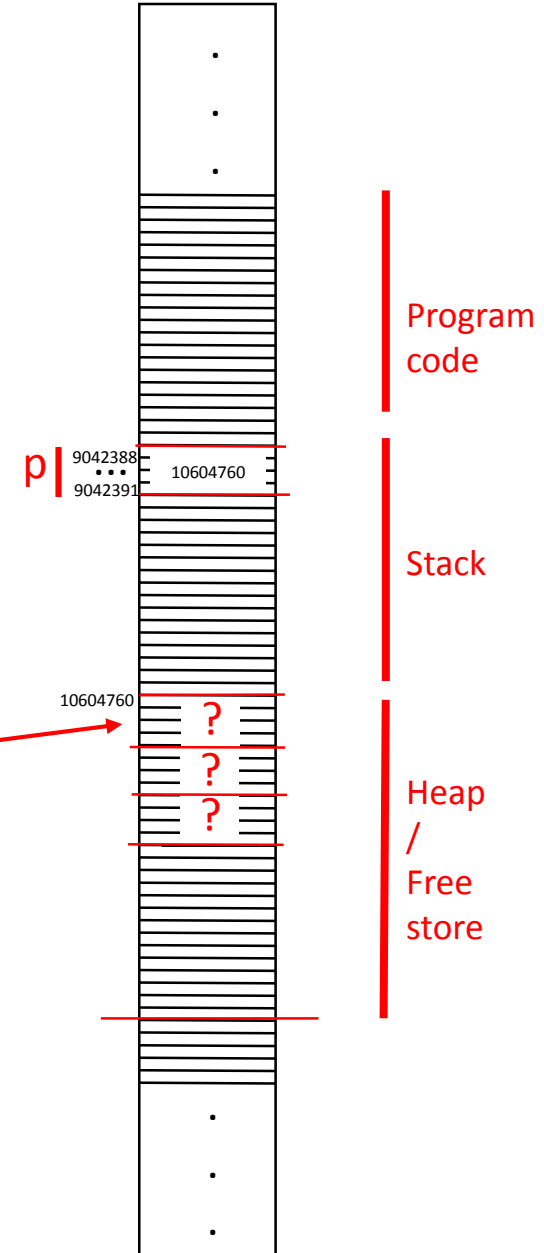
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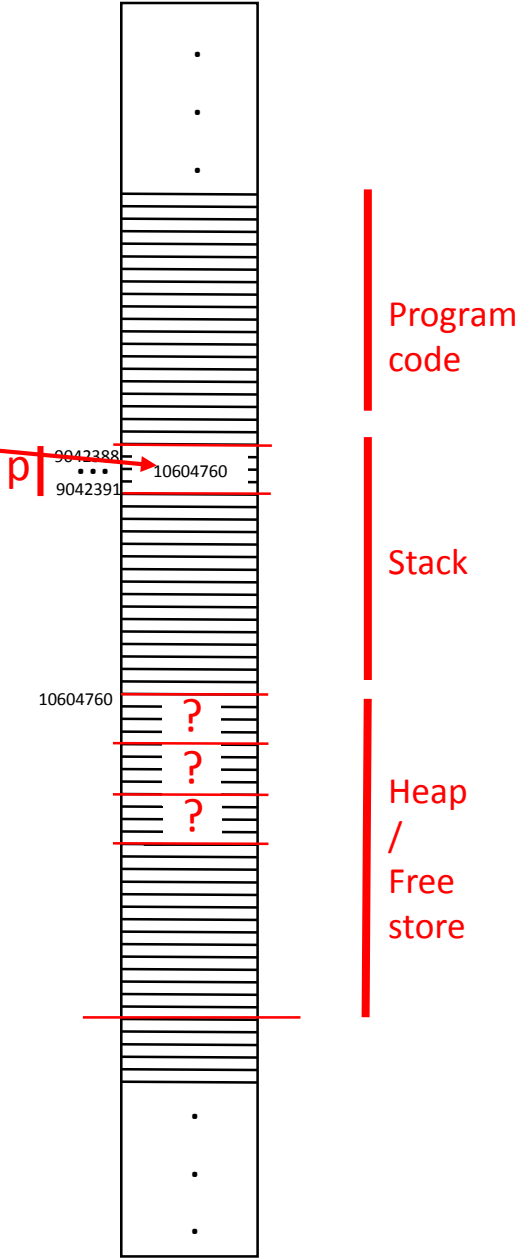
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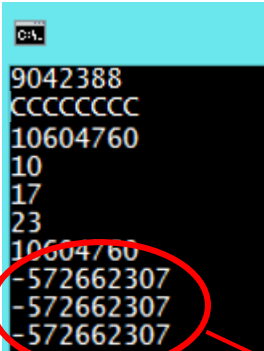
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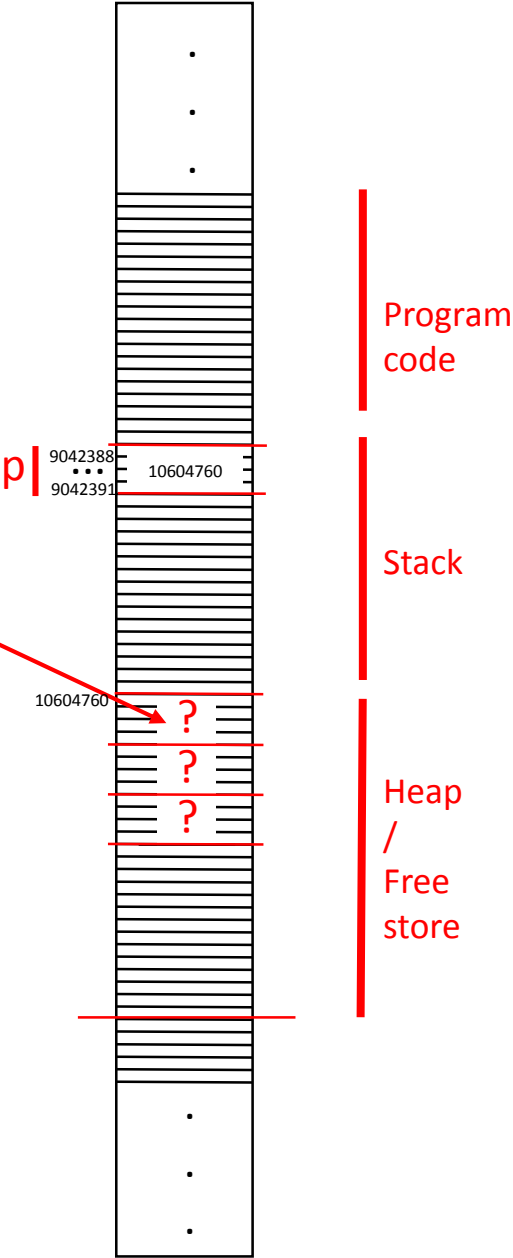
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shouldn't
do this