

Experiment 8-2

```
#include <stdio.h>
```

```
int main() {
```

```
    int a = 10, *P1 = &a;
```

```
    float b = 20.5, *P2 = &b;
```

```
    char c = 'A', *P3 = &c;
```

```
    printf("Before: %d %f %c\n", a, b, c);
```

```
    P1++; P2++; P3++;
```

```
    printf("After increment: %d %f %c\n", *P1, *P2, *P3);
```

```
    P1--; P2--; P3--;
```

```
    printf("After decreament: %d %f %c\n", *P1, *P2, *P3);
```

```
    return 0;
```

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A screenshot of a Mac desktop. On the left, the Xcode IDE is open, showing the code for a C program named 'main.c'. The code demonstrates pointer arithmetic and memory addresses. The 'Output' tab shows the execution results. On the right, the Mac OS X Dock is visible, displaying icons for various applications like Mail, Calendar, and Safari. The background of the desktop is a dark, textured image.

```
main.c
```

```
#include <stdio.h>
int main() {
    int a = 10, *P1 = &a;
    float b = 20.5, *P2 = &b;
    char c = 'A', *P3 = &c;
    printf("Before: \n %d %f %c \n %p %p %p", a, b, c, P1, P2, P3);
    P1++;
    P2++;
    P3++;
    printf("\n After increment: \n %p %p %p", P1, P2, P3);
    P1--;
    P2--;
    P3--;
    printf("\n After decrement: \n %p %p %p", P1, P2, P3);
    return 0;
}
```

Output

Before:
10 20.500000 A
0x7ffd37e5f274 0x7ffd37e5f270 0x7ffd37e5f26f

After increment:
0x7ffd37e5f278 0x7ffd37e5f274 0x7ffd37e5f270

After decrement:
0x7ffd37e5f274 0x7ffd37e5f270 0x7ffd37e5f26f

== Code Execution Successful ==