

```

void foo(int x, int* y, int z[]) {
    x = x + *y + z[1];
    *y = 54;

    y = &x;
    *y = 66;

    z[0] = z[1];
    z[1] = z[2];

    printf("%i %i %i %i\n", x, *y, z[0], z[1]);
}

int main() {
    int a = 4;
    int b = 100;
    int* c = &a;
    int d[] = {8, 30, 60};

    foo(b, c, d);

    printf("%i %i %i %i %d\n", a, b, *c, d[0], d[1]);
    return EXIT_SUCCESS;
}

```

Solution to Practice Problem 2:

Draw a **box-and-pointer diagram** to indicate what the following snippets of code are doing. Also show what is output.

Arrays can be thought of as pointers (to the beginning of the array), so treat them as such in this problem.

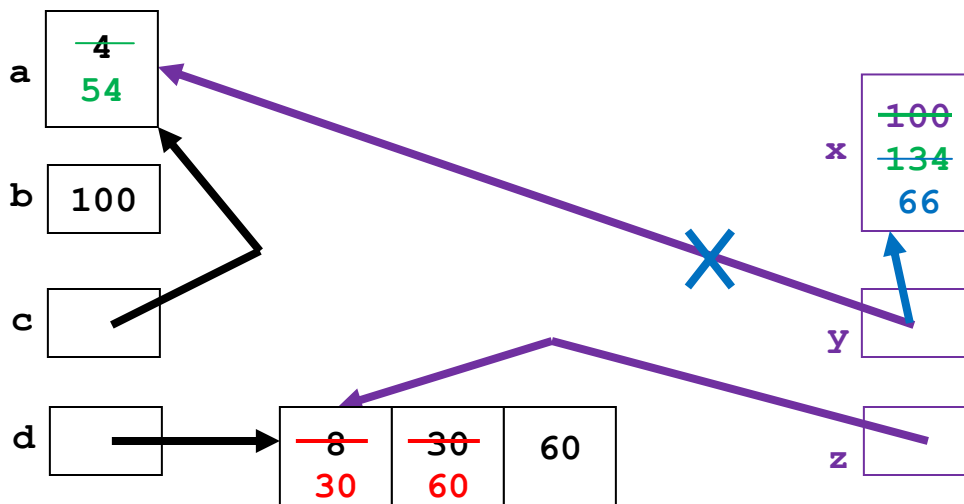
Output:

```

66 66 30 60
54 100 54 30 60

```

Box and pointer diagram (you can just cross out things to show how they change as the code executes):



Black shows the effect of the first four lines in *main*.

Purple shows the effect of calling function *foo* from *main*.

Green shows the effect of the first two lines in *foo*.

Blue shows the effect of the next two lines in *foo*.

Red shows the effect of the next two lines in *foo*.