

```
avg = average(x, y);
```

This statement calls `average`, then saves its return value in the variable `avg`.

Now, let's use the `average` function in a complete program. The following program reads three numbers and computes their averages, one pair at a time:

```
Enter three numbers: 3.5 9.6 10.2
Average of 3.5 and 9.6: 6.55
Average of 9.6 and 10.2: 9.9
Average of 3.5 and 10.2: 6.85
```

Among other things, this program shows that a function can be called as often as we need.

```
average.c /* Computes pairwise averages of three numbers */

#include <stdio.h>

double average(double a, double b)
{
    return (a + b) / 2;
}

int main(void)
{
    double x, y, z;

    printf("Enter three numbers: ");
    scanf("%lf%lf%lf", &x, &y, &z);
    printf("Average of %g and %g: %g\n", x, y, average(x, y));
    printf("Average of %g and %g: %g\n", y, z, average(y, z));
    printf("Average of %g and %g: %g\n", x, z, average(x, z));

    return 0;
}
```

Notice that I've put the definition of `average` before `main`. We'll see in Section 9.2 that putting `average` after `main` causes problems.

PROGRAM Printing a Countdown

Not every function returns a value. For example, a function whose job is to produce output may not need to return anything. To indicate that a function has no return value, we specify that its return type is `void`. (`void` is a type with no values.) Consider the following function, which prints the message `T minus n and counting`, where *n* is supplied when the function is called:

```
void print_count(int n)
{
    printf("T minus %d and counting\n", n);
}
```