```
runner% cat score_arr0.c
/* Read scores from stdin into an array.
 * Find their average.
 */
#include <stdio.h>
#include <stdlib.h>
#define MAXS 10  /* maximum number of scores */
void main(void)
{
   int s[MAXS];   /* array holding score values */
   int n;    /* number of scores read */
   int i;    /* counter for for loops */
   int sum;  /* running sum, used for average */
   double ave;    /* average of scores */
   /* fetch scores from stdin. */
   n = 0;
   while (scanf("%i", &s[n]) != EOF) {
      n++;
      if (n == MAXS) {
         printf("Problem reading scores\n");
         exit(1);
      }
   }
   /* print scores on stdout */
   for (i = 0; i < n; i++)
      printf("Score number %i = %i\n", i, s[i]);
   /* calculate the average */
   sum = 0;
   for (i = 0; i < n; i++)
      sum = sum + s[i];
   ave = (double)sum / (double)i;
   printf("Average: %.2f\n", ave);
   exit(0);
}

runner% lint -m -u score_arr0.c

function returns value which is always ignored
    printf
runner% cc -o score_arr0 score_arr0.c
runner% score_arr0 <scores.text
Score number 0 = 80
Score number 1 = 95
Score number 2 = 75
Score number 3 = 82
Score number 4 = 91
Average: 84.60
runner% score_arr0
80
95
75
82
91
(ctrl-d entered)
Score number 0 = 80
Score number 1 = 95
Score number 2 = 75
Score number 3 = 82
Score number 4 = 91
Average: 84.60
runner%
```

```
runner$ cat score_arr.c
/* Read scores from stdin into an array.
 * Find their average.
 */
#include <stdio.h>
#include <stdlib.h>
#define MAXS 10  /* maximum number of scores */

int  get_scores(int s[], int *n);
void put_scores(int s[], int n);
double calc_ave(int s[], int n);

void main(void)
{
        int s[MAXS];   /* array holding score values */
        int n;         /* number of scores read */
        double ave;    /* average of scores */
        if (get_scores(s, &n) == -1) {
                printf("Problem reading scores\n");
                exit(1);
        }
        put_scores(s, n);
        ave = calc_ave(s, n);
        printf("Average: %.2f\n", ave);
        exit(0);
}

/* get_scores: fetch scores from stdin.  Return -1 if too many */
int get_scores(int s[], int *n)
{
        *n = 0;
        while (scanf("%i", &s[*n]) != EOF) {
                (*n)++;
                if (*n == MAXS) return -1;
        }
        return 0;
}

/* put_scores: print scores on stdout */
void put_scores(int s[], int n)
{
        int i;
        for (i = 0; i < n; i++)
                printf("Score number %i = %i\n", i, s[i]);
}

/* calc_ave: calculate and return the average */
double calc_ave(int s[], int n)
{
        int i;
        int sum = 0;
        for (i = 0; i < n; i++)
                sum = sum + s[i];
        return (double)sum / (double)i;
}
```

```
runner$ score_arr <scores.text
Score number 0 = 80
Score number 1 = 95
Score number 2 = 75
Score number 3 = 82
Score number 4 = 91
Average: 84.60
```

```
runner$ score_arr
80
95
75
82
91  (ctrl-D entered)
Score number 0 = 80
Score number 1 = 95
Score number 2 = 75
Score number 3 = 82
Score number 4 = 91
Average: 84.60
```