

Name : \_\_\_\_\_

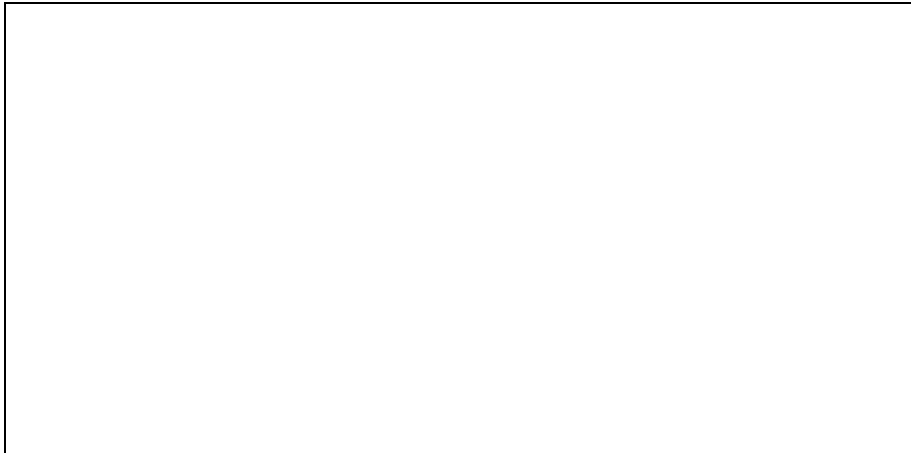
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CS 100 Exam I

Give the output of the C program shown below when the user enters the input value 14523

```
#include <stdio.h>

int main(void) {
    int a, num, temp, ans;
    scanf("%d", &num);
    while (num != 0) {
        ans = 0;
        temp = num % 10;
        for (a=1; a<=temp; a++)
            ans = ans + temp;
        printf("%d\n", ans);
        num = num / 10;
    }
    return 0;
}
```



Give the output of the C program shown below

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

int main(void) {
    int a, b;
    char str[10] = "TIDE";
    int x = strlen(str) - 1;
    for (a=0; a<4; a++) {
        for (b=0; b<4; b++) {
            if (a==0) printf("%c", str[b]);
            else if (b==0) printf("%c", str[a]);
            else if (b==x) printf("%c", str[x-a]);
            else if (a==x) printf("%c", str[x-b]);
            else printf(" ");
        }
        printf("\n");
    }
    return 0;
}
```

