

```
#include <stdio.h>

int main(){
    char sentence[255], ch;
    int i=0;

    printf("Please enter a sentence:\n");
    gets(sentence);

    while( (ch=sentence[i]) != '\0'){
        if (i==0 || sentence[i-1] == ' '){
            if (ch>='a' && ch<='z')
                sentence[i] -= ('a'-'A');
        }
        else {
            if (ch>='A' && ch<='Z')
                sentence[i] += ('a'-'A');
        }
        i++;
    }

    printf("%s\n", sentence);

    return 0;
}
```

Ex2.c

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

```
int main(){
```

```
    float series;
```

```
    float term;
```

```
    int i;
```

```
    /* Part 1 */
```

```
    series = 0;
```

```
    for (i = 1; i <= 1000; i++) {
```

```
        int sign = (i+1)%2 == 0? 1:-1;
```

```
        int isq = i*i;
```

```
        int i5sq = (i+5)*(i+5);
```

```
        term = (float)sign * isq / i5sq;
```

```
        series += term;
```

```
    }
```

```
    printf("%f\n", series);
```

```
    /* Part 2 */
```

```
    series = term = 0;
```

```
    i=0;
```

```
    do {
```

```
        series += term;
```

```
        i++;
```

```
        int sign = (i+1)%2 == 0? 1:-1;
```

```
        int isq = i*i;
```

```
int i5sq = (i+5)*(i+5);
term = (float)sign * isq / i5sq;
} while ( (series+term) < 0.5);
printf("%d\n", i-1);

return 0;
}
```

Ex3.c

```
#include <stdio.h>

int main(){
    int n, i, j;
    printf("Enter a positive integer:");
    scanf("%d", &n);

    for (i=n; i>0; i--){
        for (j=1; j<=i; j++)
            printf("*");
        printf("\n");
    }
    for (i=2; i<=n; i++){
        for (j=1; j<=i; j++)
            printf("*");
        printf("\n");
    }

    return 0;
}
```

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

```
int main(){
```

```
    char sentence[255], ch;
```

```
    int i=0;
```

```
    int cA=0, cE=0, cI=0, cO=0, cU=0;
```

```
    printf("Please enter a sentence:\n");
```

```
    gets(sentence);
```

```
    while( (ch=sentence[i++]) != '\0')
```

```
    switch (ch){
```

```
        case 'A': case 'a': cA++; break;
```

```
        case 'E': case 'e': cE++; break;
```

```
        case 'I': case 'i': cI++; break;
```

```
        case 'O': case 'o': cO++; break;
```

```
        case 'U': case 'u': cU++;
```

```
    }
```

```
    printf("A:%d\tE:%d\tI:%d\tO:%d\tU:%d\n",
```

```
        cA, cE, cI, cO, cU);
```

```
    return 0;
```

```
}
```