

```
#include <stdio.h>
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```
int main()
{
    int square,n1,n2;
    float circle;
    char shape;
    printf("enter shape S or C: ");
    scanf("%c",&shape);
    if(shape=='S')
    {
        printf("Shape=S");
        printf("\n");
        printf("Size= ");
        scanf("%d",&n1);
        square=n1*n1;
        printf("Area of square:%d",square);
    }
    else if(shape=='C')
    {
        printf("Shape=C");
        printf("\n");
        printf("Size= ");
        scanf("%d",&n2);
        circle=3.14*n2*n2;
        printf("%.2f",circle);
    }
    return 0;
}
```

2.

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

```
int main()
{
    int arr[20],i,count=1,n,j;
    printf("enter array length: ");
    scanf("%d",&n);
    printf("enter the array: ");
    for(int i=0;i<n;i++)
    {
        printf("enter element %d: ",i+1);
        scanf("%d",&arr[i]);
    }
    for(i=1;i<=n;i++)
```

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    {
        if(arr[i-1]==arr[i])
            count++;
        else
        {
            if(count>1)
            {
                printf("%d->%d",arr[i-1],count);
            }

            count=1;
        }
    }
    return 0;
}
3.#include <stdio.h>
#include <string.h>

void justifySentence(char sentence[], int screenLength) {
    int length = strlen(sentence);
    int spaceCount = 0;

    for (int i = 0; i < length; i++) {
        if (sentence[i] == ' ') {
            spaceCount++;
        }
    }

    int totalSpaces = screenLength - length + spaceCount;
    int spacesToAdd = totalSpaces / spaceCount;
    int extraSpaces = totalSpaces % spaceCount;

    for (int i = 0; i < length; i++) {
        if (sentence[i] == ' ') {
            for (int j = 0; j < spacesToAdd; j++) {
                printf("*");
            }

            if (extraSpaces > 0) {
                printf("*");
                extraSpaces--;
            }
        } else {
            printf("%c", sentence[i]);
        }
    }
}

```

```
    printf("\n");
}

int main() {
    char sentence[1000];
    int screenLength;

    printf("Enter the sentence: ");
    fgets(sentence, sizeof(sentence), stdin);
    printf("Enter the screen length: ");
    scanf("%d", &screenLength);

    printf("Justified Sentence:\n");
    justifySentence(sentence, screenLength);

    return 0;
}
```