**BASIC PATTERN LOGIC PATTERN**

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| --- |
| \*  \* \*  \* \* \*  \* \* \* \*  \* \* \* \* \* |

1.

**Program(Method 1):**

#include <stdio.h>

void main()

{

int i,j,n;

printf("Enter the Number of lines:");

scanf("%d",&n);

for(i=1;i<=n;i++)

{

for(j=1;j<=i;j++)

printf("%s","\*");

printf("\n");

}

}

**Program(Method 2 – Best Method):**

#include <stdio.h>

void main()

{

char\* c = "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*";

int i,n;

printf("Enter the Number of lines:");

scanf("%d",&n);

for(i=1;i<=n;i++)

printf("%\*.\*s\n",i,i,c);

}

|  |
| --- |
| \*  \* \*  \* \* \*  \* \* \* \*  \* \* \* \* \* |

2.

**Program(Method 1):**

#include <stdio.h>

void main()

{

int i,j,k,n;

printf("Enter the Number of lines:");

scanf("%d",&n);

for(i=1;i<=n;i++)

{

for(k=1;k<=n-i;k++)

printf("%s"," ");

for(j=1;j<=i;j++)

printf("%s","\*");

printf("\n");

}

}

**Program(Method 2 – Better than method 1)**

#include <stdio.h>

void main()

{

int i,j,n;

printf("Enter the Number of lines:");

scanf("%d",&n);

for(i=1;i<=n;i++)

{

printf("%\*s",n-i,"");

for(j=1;j<=i;j++)

printf("%s","\*");

printf("\n");

}

}

**Program(Method 3 – Best Method)**

#include <stdio.h>

void main()

{

char\* c = "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*";

int i,n;

printf("Enter the Number of lines:");

scanf("%d",&n);

for(i=1;i<=n;i++)

printf("%\*.\*s\n",n,i,c);

}

|  |
| --- |
| A  AB  ABC  ABCD  ABCDE |

3.

**PROGRAM:**

#include <stdio.h>

void main()

{

char\* c = "ABCDEFGHIJKL";

int i,n;

printf("Enter the Number of lines:");

scanf("%d",&n);

for(i=1;i<=n;i++)

printf("%\*.\*s\n",n,i,c);

}

|  |
| --- |
| A  AB  ABC  ABCD  ABCDE |

4.

**PROGRAM:**

#include <stdio.h>

void main()

{

char\* c = "ABCDEFGHIJKL";

int i,n;

printf("Enter the Number of lines:");

scanf("%d",&n);

for(i=1;i<=n;i++)

printf("%\*.\*s\n",i,i,c);

}

|  |
| --- |
| A  BC  DEF  GHIJ  KLMNO |

5.

**PROGRAM:**

#include <stdio.h>

void main()

{

char\* c = "ABCDEFGHIJKLMNOPQRS";

int i,n;

printf("Enter the Number of lines:");

scanf("%d",&n);

for(i=1;i<=n;c+=i,i++)

printf("%\*.\*s\n",i,i,c);

}

|  |
| --- |
| \*  \*\*\*  \*\*\*\*\*  \*\*\*\*\*\*\*  \*\*\*\*\*\*\*\*\* |

6.

**PROGRAM:**

#include <stdio.h>

void main()

{

char\* c = "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*";

int i,n;

printf("Enter the Number of lines:");

scanf("%d",&n);printf("\n");

for(i=0;i<n;i++)

printf("%\*.\*s\n",n+i,2\*i+1,c);

}

|  |
| --- |
| A  ABC  ABCDE  ABCDEFG  ABCDEFGHI |

7.

**PROGRAM:**

#include <stdio.h>

void main()

{

char\* c = "ABCDEFGHIJKLM";

int i,n;

printf("Enter the Number of lines:");

scanf("%d",&n);printf("\n");

for(i=0;i<n;i++)

printf("%\*.\*s\n",n+i,2\*i+1,c);

}

|  |
| --- |
| \*  \*\*\*  \*\*\*\*\*  \*\*\*\*\*\*\*  \*\*\*\*\*\*\*\*\*  \*\*\*\*\*\*\*  \*\*\*\*\*  \*\*\*  \* |

8.

**PROGRAM:**

#include <stdio.h>

void main()

{

char\* c = "\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*";

int i,n;

printf("Enter the Number of lines:");

scanf("%d",&n);

for(i=0;i<n;i++)

printf("%\*.\*s\n",n+i,2\*i+1,c);

for(i=n-2;i>=0;i--)

printf("%\*.\*s\n",n+i,2\*i+1,c);

}

|  |
| --- |
| Enter character : E  A  ABA  ABCBA  ABCDCBA  ABCDEDCBA |

9.

**PROGRAM:**

#include<stdio.h>

void main()

{

char ch,r,c;

printf("Enter character : ");

scanf("%c",&ch);printf("\n");

if(ch>='a' && ch<='z')

ch=ch-32;

for(r='A'; ch>=r; r++)

{

printf("%\*s",ch-r,"");

for(c='A'; r>=c; c++)

printf("%c",c);

for(c=r-1; c>='A'; c--)

printf("%c",c);

printf("\n");

}

}

|  |
| --- |
| \* \* \*  \* \* \* \*  \* \* \* \*  \* \* \* \*  \* \* \* \*  \* \* |

10.

**PROGRAM:**

#include<stdio.h>

void main()

{

int i,j,n,s,m,L;

printf("Enter the number of row in W");

scanf("%d",&n);printf("\n");

s=1;

m=2\*n-1;

L=2\*m-1;

for(i=0;i<n;i++)

{

for(j=0;j<=L;j++)

if(((s+i) == j)||((m-i) == j)||((m+i) == j)||((L-i) == j))

printf("\*");

else

printf(" ");

printf("\n");

}

}

|  |
| --- |
| \*  \*A\*A\*  \*A\*A\*A\*A\*  \*A\*A\*A\*A\*A\*A\*  \*A\*A\*A\*A\*A\*A\*A\*A\* |

11.

**PROGRAM:**

#include <stdio.h>

void main()

{

char\* c = "\*A\*A\*A\*A\*A\*A\*A\*A\*A\*A\*A\*A\*A";

int i,n;

printf("Enter the Number of lines:");

scanf("%d",&n);

for(i=0;i<2\*n;i+=2)

{

printf("%\*.\*s\n",2\*n+i,2\*i+1,c);

}

}

|  |
| --- |
| Enter the char: Z  A A  AB BA  ABC CBA  ABCD DCBA  ABCDE EDCBA  ABCDEF FEDCBA  ABCDEFG GFEDCBA  ABCDEFGH HGFEDCBA  ABCDEFGHI IHGFEDCBA  ABCDEFGHIJ JIHGFEDCBA  ABCDEFGHIJK KJIHGFEDCBA  ABCDEFGHIJKL LKJIHGFEDCBA  ABCDEFGHIJKLM MLKJIHGFEDCBA  ABCDEFGHIJKLMN NMLKJIHGFEDCBA  ABCDEFGHIJKLMNO ONMLKJIHGFEDCBA  ABCDEFGHIJKLMNOP PONMLKJIHGFEDCBA  ABCDEFGHIJKLMNOPQ QPONMLKJIHGFEDCBA  ABCDEFGHIJKLMNOPQR RQPONMLKJIHGFEDCBA  ABCDEFGHIJKLMNOPQRS SRQPONMLKJIHGFEDCBA  ABCDEFGHIJKLMNOPQRST TSRQPONMLKJIHGFEDCBA  ABCDEFGHIJKLMNOPQRSTU UTSRQPONMLKJIHGFEDCBA  ABCDEFGHIJKLMNOPQRSTUV VUTSRQPONMLKJIHGFEDCBA  ABCDEFGHIJKLMNOPQRSTUVW WVUTSRQPONMLKJIHGFEDCBA  ABCDEFGHIJKLMNOPQRSTUVWX XWVUTSRQPONMLKJIHGFEDCBA  ABCDEFGHIJKLMNOPQRSTUVWXY YXWVUTSRQPONMLKJIHGFEDCBA  ABCDEFGHIJKLMNOPQRSTUVWXYZYXWVUTSRQPONMLKJIHGFEDCBA |

12.

#include <stdio.h>

void main()

{

int i,j;

char n;

char c ='A';

printf("Enter the Char:");

scanf("%d",&n);

for(i=65;i<=n;i++)

{

for(j=65;j<=i;j++)

{

printf("%c",c);

c++;

}

if(i!=n)

printf("%\*s",2\*(n-i)-1,"");

else

c--;

for(j=i;j>64;j--)

{

if(i==n)

if(j==65)

break;

printf("%c",--c);

}

printf("\n");

}

}