Assignment - 8 A Job Ready Bootcamp in C++, DSA and IOT MySirG

Pattern Problems

Write a program to draw the following patterns:

Answers of all given pattern problem:-

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|  |  |
|  | #include<stdio.h> |
|  | int main() |
|  | { |
|  | int lines; |
|  | printf("Enter how many lines you want to print: "); |
|  | scanf("%d",&lines); |
|  | int i,j; |
|  | for(i=1; i<=lines; i++) |
|  | { |
|  | for(int j=1; j<=lines; j++) |
|  | { |
|  | if(j<=i) |
|  | printf("\*"); |
|  | else |
|  | printf(" "); |
|  | } |
|  | printf("\n"); |
|  | } |
|  | return 0; |
|  | } |

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#include<stdio.h>

int main()

{

int lines;

printf("Enter how many lines you want to print: ");

scanf("%d",&lines);

int i,j;

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

{

for(int j=1; j<=lines; j++)

{

if(j>=(lines+1)-i)

printf("\*");

else

printf(" ");

}

printf("\n");

}

return 0;

}

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#include<stdio.h>

int main()

{

int lines;

printf("Enter how many lines you want to print: ");

scanf("%d",&lines);

int i,j;

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

{

for(int j=1; j<=lines; j++)

{

if(j<=(lines+1)-i)

printf("\*");

else

printf(" ");

}

printf("\n");

}

return 0;

}

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#include <stdio.h>

int main()

{

int i, j, lines;

printf("How many lines of triangle you want to print: ");

scanf("%d", &lines);

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

{

for (int j = 1; j <= 2 \* lines - 1; j++)

{

if (j >= lines + 1 - i && j <= lines - 1 + i)

printf("\*");

else

printf(" ");

}

printf("\n");

}

return 0;

}

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#include <stdio.h>

int main()

{

int i, j, lines,flag;

printf("How many lines of triangle you want to print: ");

scanf("%d", &lines);

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

{

flag=1;

for (int j = 1; j <= 2 \* lines - 1; j++)

{

if (j >= lines + 1 - i && j <= lines - 1 + i && flag)

{

printf("\*");

flag = 0;

}

else

{

printf(" ");

flag =1;

}

}

printf("\n");

}

return 0;

}

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#include <stdio.h>

int main()

{

int i, j, lines;

printf("How many lines of triangle you want to print: ");

scanf("%d", &lines);

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

{

for (int j = 1; j <= 2\*lines-1; j++)

{

if (j<=(lines+1)-i || j>=(lines-1)+i)

printf("\*");

else

printf(" ");

}

printf("\n");

}

return 0;

}

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1 2 1

1 2 3 2 1

1 2 3 4 3 2 1

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#include <stdio.h>

int main()

{

int k;

for (int i = 1; i <= 4; i++)

{

k = 1;

for (int j = 1; j <= 7; j++)

{

if (j >= 5 - i && j <=3 + i)

{

printf("%d",k);

j<4?k++:k--;

}

else

printf(" ");

}

printf("\n");

}

return 0;

}

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ABCDEDCBA

ABCD EDCB

ABC CBA

AB BA

A A

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#include <stdio.h>

int main()

{

int lines;

printf("Enter how many lines you want to print: ");

scanf("%d", &lines);

for (int i = 1; i <= lines; i++)

{

int k = 'A';

for (int j = 1; j <= lines \* 2 - 1; j++)

{

if (j <= (lines + 1) - i || j >= (lines - 1) + i)

{

printf("%c", k);

j < lines ? k++ : k--;

}

else

{

printf(" ");

if (j == 4)

k--;

}

}

printf("\n");

}

return 0;

}

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|  | 123454321 |
|  | 1234 4321 |
|  | 123 321 |
|  | 12 21 |
|  | 1 1 |
|  | \*/ |
|  |  |
|  | #include <stdio.h> |
|  | int main() |
|  | { |
|  | int lines; |
|  | printf("Enter how many lines you want to print: "); |
|  | scanf("%d", &lines); |
|  | int k; |
|  | for (int i = 1; i <= lines; i++) |
|  | { |
|  | k = 1; |
|  | for (int j = 1; j <= lines \* 2 - 1; j++) |
|  | { |
|  | if (j <= lines + 1 - i || j >= lines - 1 + i) |
|  | { |
|  | if (j <= lines + 1 - i) |
|  | { |
|  | printf("%d", k++); |
|  | if(j==lines+1-1) |
|  | k = j; |
|  | } |
|  | else |
|  | printf("%d", --k); |
|  | } |
|  | else |
|  | printf(" "); |
|  | } |
|  | printf("\n"); |
|  | } |
|  | return 0; |
|  | } |

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#include <stdio.h>

int main()

{

int i, j, lines;

printf("How many lines of triangle you want to print: ");

scanf("%d", &lines);

int k = 0;

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

{

i <= ((lines + 1) / 2) ? k++ : k--;

for (int j = 1; j <= (lines + 1) / 2; j++)

{

if (j <= k)

printf("\*");

else

printf(" ");

}

printf("\n");

}

return 0;

}

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#include <stdio.h>

int main()

{

int i, j, lines;

printf("How many lines of triangle you want to print: ");

scanf("%d", &lines);

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

{

for (j = 1; j <=lines\*2-1; j++)

{

if(j>=i && j<=(lines\*2) - i)

printf("\*");

else

printf(" ");

}

printf("\n");

}

return 0;

}

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232

34543

4567654

567898765

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#include <stdio.h>

int main()

{

int i, j, lines,k=0;

printf("How many lines of triangle you want to print: ");

scanf("%d", &lines);

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

{

for (j = 1; j <=lines\*2-1; j++)

{

if(j>=lines+1-i && j<=lines-1+i){

j<=lines?k++:k--;

printf("%d",k);

}

else

printf(" ");

}

printf("\n");

}

return 0;

}

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#include <stdio.h>

int main()

{

int i, j, n;

printf("How many lines of triangle you want to print: ");

scanf("%d", &n);

int k;

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

{

for (int j = 1; j <=n; j++)

{

if (j == 1 || j == i)

printf("\*");

else

printf(" ");

}

printf("\n");

if(i==n)

for(int k=1; k<=n; k++)

printf("\*");

}

return 0;

}

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#include <stdio.h>

int main()

{

int i, j, n;

printf("How many lines of triangle you want to print: ");

scanf("%d", &n);

int k;

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

{

for (int j = 1; j <=2\*n-1; j++)

{

if (j == 6-i || j == 4+i)

printf("\*");

else

printf(" ");

}

printf("\n");

if(i==n)

for(int k=1; k<=2\*n-1; k++)

printf("\*");

}

return 0;

}

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#include <stdio.h>

int main()

{

int i, j, n;

printf("How many lines of triangle you want to print: ");

scanf("%d", &n);

int k;

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

{

for (int j = 1; j <=2\*n-1; j++)

{

if (j == n+1-i || j == n-1+i)

printf("\*");

else

printf(" ");

}

printf("\n");

if(i==n)

for(int k=1; k<=2\*n-1; k++)

printf("\*");

}

return 0;

}

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123454321

1234 4321

123 321

12 21

1 1

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#include <stdio.h>

int main()

{

int lines;

printf("Enter how many lines you want to print: ");

scanf("%d", &lines);

int k;

for (int i = 1; i <= lines; i++)

{

k = 'A';

for (int j = 1; j <= lines \* 2 - 1; j++)

{

if (j <= lines + 1 - i || j >= lines - 1 + i)

{

if (j <= lines + 1 - i)

{

printf("%c", k++);

if(j==lines+1-1)

k = j;

}

else

printf("%d", --k);

}

else

printf(" ");

}

printf("\n");

}

return 0;

}

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#include <stdio.h>

int main()

{

int i, j, n;

printf("How many lines of triangle you want to print: ");

scanf("%d", &n);

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

{

if (i <= n / 2 + 1)

{

for (int j = 1; j <= n; j++)

{

if (j >= n/2+2 - i && j <= n/2 + i)

printf("\*");

else

printf(" ");

}

printf("\n");

}

else

{

for (int j = 1; j <= n; j++)

{

if (j >= i-n/2 && j <=(n-(i-(n/2+1))))

printf("\*");

else

printf(" ");

}

printf("\n");

}

}

return 0;

}

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9876543210

876543210

76543210

6543210

543210

43210

3210

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0

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#include <stdio.h>

int main()

{

int i, j, lines,k;

printf("How many lines of triangle you want to print: ");

scanf("%d", &lines);

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

{

k = lines-i;

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

{

if(j<=(lines+1) - i)

printf("%d",k--);

else

printf(" ");

}

printf("\n");

}

return 0;

}