

Diamond pattern using stars (input=4)

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  *
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* * *
* * * *
 * * *
  * *
   *
```

program:

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

```
int main()
```

```
{
```

```
int n, c, k, space = 1;
```

```
printf("Enter the number of rows\n");
```

```
scanf("%d", &n);
```

```
space = n - 1;
```

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

```
{
```

```
for (c = 1; c <= space; c++)
```

```
printf(" ");
```

```
space--;
```

```
for (c = 1; c <= 2*k-1; c++)
```

```
printf("*");
```

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

```
}
```

```
space = 1;
```

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

```
{
```

```
for (c = 1; c <= space; c++)
```

```
printf(" ");
```

```
space++;
```

```
for (c = 1 ; c <= 2*(n-k)-1; c++)
```

```
printf("*");
```

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

```
}
```

```
return 0;
```

```
}
```