



lesson 46 Ternary Operator

If I have a number and I want to know if it is **odd** or **even**, I need to know if it is **divisible** by **2** or not.

We can use the **%** which means the **remainder** of the division.

For example if $4 / 2 = 0$ and the remainder is 0 so $4 \% 2 = 0$.

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

```
int main() {
```

```
int x;
```

```
printf("Enter a number: ");
```

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

```
if (x % 2 == 1)
```

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

```
else
```

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

```
}
```

input:

6

output :

even



input:

3

output :

odd

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Example 2 :

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

```
int main() {
```

```
int x;
```

```
printf("Enter a number: ");
```

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

```
if (x % 2)
```

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

```
// If the remainder is 1 so true
```

```
else
```

```
//If the remainder is 0 so false
```

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

```
}
```

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In this lesson we are going to see the ternary operator, which replaces the if :

Condition ? value_if_true : value_if_false;

- The **:** replaces the else, that's why after the **:** we put the value if false
- Value_if_true: if the condition is verified (true).
- Value_if_false: if the condition is NOT verified (false).

Ternary Operator shortens the code.

```
#include <stdio.h>
int main() {
int x;
printf("Enter a number: ");
scanf("%d", &x);
x % 2 ? printf("odd") : printf("even");
}
```

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Another method :

```
int x;
printf("Enter a number: ");
scanf("%d", &x);
```



```
printf(x % 2 ? "odd" : "even" );
```

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Another method :

```
#include <stdio.h>
int main() {
int y;
scanf("%d", &y);
int x = (y % 2 == 1) ? 55 : 30;
printf("%d", x);
}
```

input :

5

output :

55

input :

10

output :

30

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