

Modulo

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Modulo is the mathematical operation that performs division but returns the remainder. The modulo operator is `%`.

$$5 \% 2 = \cancel{2} \frac{1}{\cancel{2}}$$

```
int modulo = 5 % 2;  
System.out.println(modulo);
```

TRY IT

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What happens if you:

- Change `modulo` to `5 % -2`?
- Change `modulo` to `5 % 0`?
- Change `modulo` to `5 % 2.0`?

TRY IT

1

Modulo

What does modulo (`%`) do?

- ☐ Determines if a number is even or odd

- ☐ Is another name for division
- ☐ Determines the percentage of two numbers
- ☒ Returns the remainder after division if performed

Modulo is the remainder after division is performed. So division is a part of modulo, but modulo is not division. Modulo can be used to determine if a number is even or odd, but modulo can do more than that. Finally, the `%` is used with modulo, but modulo does not deal with percentages.