

# C# Cheat Sheet

## Data Types

bool	Boolean value
byte	8-bit unsigned integer
char	16-bit Unicode character
decimal	128-bit precise decimal values with 28-29 significant digits
double	64-bit double-precision floating point
float	32-bit single-precision floating point
int	32-bit signed integer
long	64-bit signed integer
object	Base type for all other types
sbyte	8-bit signed integer
short	16-bit signed integer
string	String value
uint	32-bit unsigned integer
ulong	64-bit unsigned integer
ushort	16-bit unsigned integer

## Assignment Operators

=	Simple assignment
+=	Addition assignment
-=	Subtraction assignment
*=	Multiplication assignment
/=	Division assignment
%=	Remainder assignment
&=	AND assignment
=	OR assignment
^	XOR assignment
<<=	Left-shift assignment
>>=	Right-shift assignment

## Arithmetic Operators

+	Add numbers
-	Subtract numbers
*	Multiply numbers
/	Divide numbers
%	Compute remainder of division of numbers
++	Increases integer value by 1
--	Decreases integer value by 1

## Type Conversion Methods

ToBoolean
ToByte
ToChar
ToDateTime
ToDecimal
ToDouble
ToInt16
ToInt32
ToInt64
ToSbyte
ToSingle
ToString
ToType
ToUInt16
ToUInt32
ToUInt64

## Comparison Operators

<	Less than
>	Greater than
<=	Less than or equal to
>=	Greater than or equal to
==	Equal to
!=	Not equal to

## Logical and Bitwise Operators

&&	Logical AND
	Logical OR
!	Logical NOT
&	Binary AND
	Binary OR
^	Binary XOR
~	Binary Ones Complement
<<	Binary Left Shift
>>	Binary Right Shift

## Statements

if-else	<pre>if (true) {...} else if (true) {...} else {...}</pre>
switch	<pre>switch (var) { case 1: break; default: break; }</pre>
for	<pre>for (int i =1; i &lt; 5; i++) {...}</pre>
foreach-in	<pre>foreach (int item in array) {...}</pre>
while	<pre>while (true) {...}</pre>
do... while	<pre>do {...} while (true);</pre>
try-catch-finally	<pre>try {...} catch (Exception e) {...} catch {...} finally {...}</pre>