

A Short Arithmetic Review for Ham Radio Operators

Math Symbols

	<u>Name</u>	<u>Usage</u>	<u>Meaning, English translation</u>
+	add, plus	$a + b$	a plus b
-	subtract, minus	$a - b$	a minus b
±	plus minus	$\pm a$	either +a or -a
*	multiply, times	$a * b$	a times b
x	multiply, times	$a x b$	a times b
·	multiply, times	$a \cdot b$	a times b
	multiply, times	$a b$	a times b
/	divide, over	a / b	a divided by b, a over b also a fraction, a = numerator, b = denominator
÷	divide	$a \div b$	a divided by b
$1 \div x$	reciprocal	$1 / a$	1 divided by a, reciprocal of a
x^2	square	a^2	a times a
$\sqrt{\quad}$	square root	\sqrt{a}	square root of a
$x^{1/2}$	square root	$a^{1/2}$	square root of a
()	group	$a(b+c)$	add b to c then multiply by a
[]	group	$a[b+c]$	add b to c then multiply by a
=	equals, same	$a = b$	a and b have the same value
≠	not equal, different	$a \neq b$	a and b are different
≈	about equal	$a \approx c$	a and b are similar
<	less than	$a < b$	a is smaller than b
>	greater than	$a > b$	a is bigger than b
∞	infinity	$a = \infty$	a is greater than anything

Greek Letters

	<u>Name</u>	<u>Conventional Meaning</u>
λ	lambda	wavelength
μ	mu	micro
π	pi	3.14159
Ω	omega	ohms
ω	omega	angular frequency = $2\pi(\text{frequency})$

Magic Algebra Rules

- 1) Do identical operations on both sides of the equal '=' sign.
Then the equation will still be valid!
- or
- 2) Multiply a value by 1. (Examples: $2 \div 2 = 1$, $a \div a = 1$, or $E \div IR = 1$)
Then the equation will still be valid!
 - 3) To add or subtract fractions, the denominators must be the same