Bracketing in Mathematical Expressions

When the shape of the brackets does not have notational meaning, it is conventional to work outward in the sequence `{ [ ( ) ] }`. Nesting of plain parentheses should be avoided.

Large bracketing should be used to surround built-up fractions in displayed equations; one may then start the sequence again.

When the argument of a function contains parentheses, it is preferred to enclose it in bold parentheses instead of square brackets:

$$\Gamma\big(\tfrac{1}{2}(x+y)\big)$$

However, it is customary to use square brackets for functional notation:

$$E[\rho(r)]$$

Use enough bracketing to make the meaning clear and unambiguous. Be especially clear with fractions formed with the solidus (*/*). According to accepted convention, all factors appearing to the right of a solidus are to be construed as belonging in the denominator: for example,

$$\begin{aligned} a/bf(x) &= a/[bf(x)] \\ &= \tfrac{a}{bf(x)}\,, \\ \tfrac{a}{b}f(x) &= (a/b)f(x)\,, \end{aligned}$$

but

$$\sin\theta/2 =?$$

If there is another way that avoids both the ambiguity and the extra bracketing, that is usually the better way.

Use	Rather than
$e^{-x}/f(x)$	$[\exp(-x)]/f(x)$
$\sin\frac{1}{2}\theta$	$\sin(\theta/2)$
$\frac{1}{2}\sin\theta$	$(\sin\theta)/2$ or $(1/2)\sin\theta$

Put in extra bracketing even where convention does not require it, if a likely misreading is thereby avoided. But leave them out where they would merely clutter the picture.

Use	Rather than
$\sin\omega t$	$\sin(\omega t)$
$\frac{1}{2}a$	$(1/2)a$
2.0 ± 0.2 mm/s	(2.0 ± 0.2) mm/s
MeV^2	$(\mathrm{MeV})^2$