Momentum is defined as $\boldsymbol{p} = \gamma m \boldsymbol{v}$.

$$\boldsymbol{p} = \gamma m \boldsymbol{v} \qquad \text{definition of momentum} \tag{1}$$

$$\boldsymbol{v} = \frac{\boldsymbol{p}}{\gamma m} \qquad \text{solve for velocity} \tag{2}$$

The dot product is really a contraction on two slots, and can be notated as $\mathsf{C}_{1,2}$.

The momentum can be expressed in all the following ways:

$$4\,\mathrm{kg}\cdot\mathrm{m/s}$$
$$4\,\mathrm{kg}\cdot\mathrm{m}\cdot\mathrm{s}^{-1}$$
$$4\,\mathrm{kg}\cdot\mathrm{m/s}$$
$$4\,\mathrm{kg}\cdot\mathrm{m/s}$$
$$\langle 3,2,-4\rangle\ \mathrm{kg}\cdot\mathrm{m/s}$$
$$\langle 3,2,-4\rangle\ \mathrm{kg}\cdot\mathrm{m/s}$$

$$3\,\mathrm{N}$$
$$3\,\mathrm{J}$$
$$3\,\mathrm{N/A}\cdot\mathrm{m}$$

The capacitance can be expressed in all the following ways:

$$4\,\mathrm{A}^2\cdot\mathrm{s}^4\cdot\mathrm{kg}^{-1}\cdot\mathrm{m}^{-2}$$
$$4\,\mathrm{A}^2\cdot\mathrm{s}^4\cdot\mathrm{kg}^{-1}\cdot\mathrm{m}^{-2}$$
$$4\,\mathrm{F}$$
$$4\,\mathrm{C/V}$$

$$3\,\mathrm{kg}\cdot\mathrm{m}\cdot\mathrm{s}^{-2}$$
$$3\,\mathrm{kg}\cdot\mathrm{m}^2\cdot\mathrm{s}^{-2}$$
$$3\,\mathrm{kg}\cdot\mathrm{A}^{-1}\cdot\mathrm{s}^{-2}$$

The resistance can be expressed in all the following ways:

$$4\,\Omega$$
$$4\,\mathrm{kg}\cdot\mathrm{m}^2\cdot\mathrm{A}^{-2}\cdot\mathrm{s}^{-3}$$
$$4\,\Omega$$
$$4\,\Omega$$

$$3\,\mathrm{N}$$
$$3\,\mathrm{J}$$
$$3\,\mathrm{T}$$

A current of $2\,\mathrm{A}$ and a resistance of $3\,\Omega$ gives a potential difference of $6\,\mathrm{V}$.

name

`\electricpotentialdifference`

base	derived	alternate
$\mathrm{kg \cdot m^2 \cdot A^{-1} \cdot s^{-3}}$	V	V

name

`\energy`

base	derived	alternate
$\mathrm{kg \cdot m^2 \cdot s^{-2}}$	J	J

name

`\angularmomentum`

base	derived	alternate
$\mathrm{kg \cdot m^2 \cdot s^{-1}}$	$\mathrm{kg \cdot m^2/s}$	$\mathrm{kg \cdot m^2/s}$

name

`\momentum`

base	derived	alternate
$\mathrm{kg \cdot m \cdot s^{-1}}$	$\mathrm{kg \cdot m/s}$	$\mathrm{kg \cdot m/s}$

name

`\oofpez`

base	approximate	precise
$\frac{1}{4\pi\epsilon_o}$	9×10^{9}	$8.9875517923 \times 10^{9}$
base	derived	alternate
$\mathrm{kg \cdot m^3 \cdot A^{-2} \cdot s^{-4}}$	m/F	$\mathrm{N \cdot m^2/C^2}$

name

`\vacuumpermeability`

base	approximate	precise
μ_o	$4\pi \times 10^{-7}$	$4\pi \times 10^{-7}$
base	derived	alternate
$\mathrm{kg \cdot m \cdot A^{-2} \cdot s^{-2}}$	H/m	$\mathrm{T \cdot m/A}$

name

`\vacuumpermittivity`

base	approximate	precise
ϵ_o	9×10^{-12}	$8.854187817 \times 10^{-12}$
base	derived	alternate
$\mathrm{A^2 \cdot s^4 \cdot kg^{-1} \cdot m^{-3}}$	F/m	$\mathrm{C^2/N \cdot m^2}$