relativistische Umrechnungen (in SI-Einheiten)

gegeben / gesucht	T	E	pc	γ	β	$\beta\gamma$
$T =$	T	$E - \mathrm{m}_0 c^2$	$\sqrt{p^2c^2 + \mathrm{m}_0^2 c^4} - \mathrm{m}_0\, c^2$	$\mathrm{m}_0 c^2(\gamma - 1)$	$\mathrm{m}_0 c^2 \left\{ \frac{1}{\sqrt{1-\beta^2}} - 1 \right\}$	$\mathrm{m}_0 c^2 \left\{ \sqrt{\beta^2\gamma^2 + 1} - 1 \right\}$
$E =$	$T + \mathrm{m}_0 c^2$	E	$\sqrt{p^2c^2 + \mathrm{m}_0^2 c^4}$	$\gamma \mathrm{m}_0 c^2$	$\frac{\mathrm{m}_0 c^2}{\sqrt{1-\beta^2}}$	$\mathrm{m}_0 c^2 \sqrt{\beta^2\gamma^2 + 1}$
$pc =$	$\sqrt{2T \cdot \mathrm{m}_0 c^2 + T^2}$	$\sqrt{E^2 - \mathrm{m}_0{}^2 c^4}$	pc	$\mathrm{m}_0 c^2 \sqrt{\gamma^2 - 1}$	$\mathrm{m}_0 c^2 \frac{\beta}{\sqrt{1-\beta^2}}$	$\beta\gamma \mathrm{m}_0 c^2$
$\gamma =$	$\frac{T + \mathrm{m}_0 c^2}{\mathrm{m}_0 c^2}$	$\frac{E}{\mathrm{m}_0 c^2}$	$\frac{\sqrt{p^2c^2 + \mathrm{m}_0{}^2 c^4}}{\mathrm{m}_0{}^2 c^4}$	γ	$\frac{1}{\sqrt{-\beta^2 + 1}}$	$\sqrt{\beta^2\gamma^2 + 1}$
$\beta =$	$\frac{\sqrt{2\mathrm{m}_0 c^2 T + T^2}}{\mathrm{m}_0 c^2 + T}$	$\frac{\sqrt{E^2 - \mathrm{m}_0^2 c^4}}{E}$	$\frac{pc}{\sqrt{(p^2c^2 + \mathrm{m}_0^2 c^4)}}$	$\sqrt{1 - \frac{1}{\gamma^2}}$	β	$\frac{\beta\gamma}{\sqrt{\beta^2\gamma^2 + 1}}$
$\beta\gamma =$	$\frac{\sqrt{2\mathrm{m}_0 c^2 T + T^2}}{\mathrm{m}_0 c^2}$	$\frac{\sqrt{E^2 - \mathrm{m}_0^2 c^4}}{\mathrm{m}_0 c^2}$	$\frac{pc}{\mathrm{m}_0 c^2}$	$\sqrt{\gamma^2 - 1}$	$\frac{\beta}{\sqrt{1-\beta^2}}$	$\beta\gamma$