Problem-Solving Techniques in Physics

with original problems and debunked myths

$$p + \frac{1}{2}\rho v^2 + \rho gh = \text{const}$$

$$t' = \gamma \left(t - \frac{vx}{c^2}\right), \qquad x' = \gamma \left(x - vt\right)$$

$$E = -\frac{GM_m}{2a}$$
 $\vec{A} = \vec{p} \times \vec{L} - GM_m \hat{r}$ $\vec{F} = m \left[(\ddot{r} - r\dot{\theta}^2) \hat{r} + (r\ddot{\theta} + 2\dot{r}\dot{\theta}) \hat{\theta} \right]$

$$B_{\lambda}(T) = \frac{2 h c^2}{\lambda^5} \frac{1}{\exp(\frac{hc}{\lambda k_B T}) - 1} \qquad \qquad \vec{S} = \frac{1}{\mu_0} \vec{E} \times \vec{B}$$

$$\Delta S \ge \int \vec{T}$$

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