

More Math

Exercise

Typeset these equations:

$$a^2 = b^2 + c^2$$

$$F = G_N \frac{m_1 m_2}{r^2}$$

$$n_{\pm}(E, T) = \frac{1}{e^{\frac{E}{k_B T}} \pm 1} = \frac{1}{e^{\hbar\omega/k_B T} \pm 1}$$

$$F_{\mu\nu} = [D_{\mu}, D_{\nu}] = \partial_{\mu} A_{\nu} - \partial_{\nu} A_{\mu} = \partial_{[\mu} A_{\nu]}$$

Solutions:

$$\begin{aligned} & \left[\right. \\ & a^2 = b^2 + c^2 \end{aligned}$$

$$\begin{aligned} & \left. \right] \\ & \left[\right. \\ & F = G_N \frac{m_1 m_2}{r^2} \end{aligned}$$

$$\begin{aligned} & \left. \right] \\ & \left[\right. \\ & n_{\pm}(E, T) = \frac{1}{e^{\frac{E}{k_{BT}} \pm 1}} \\ & \qquad \qquad = \frac{1}{e^{\{\frac{\hbar \omega}{k_{BT}}\} \pm 1}} \end{aligned}$$

$$\begin{aligned} & \left. \right] \\ & \left[\right. \\ & F_{\mu\nu} = [D_{\mu} \quad , \quad D_{\nu}] \\ & \qquad = \partial_{\mu} A_{\nu} - \partial_{\nu} A_{\mu} \\ & \qquad = \partial_{[\mu} A_{\nu]} \end{aligned}$$

$\left. \right]$

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Exercises

Typset: “Taylor expansion $e^x = \sum_{n=0}^{\infty} \frac{1}{n!} x^n$.”

$$\int_0^1 \frac{df}{dx} dx = f(1) - f(0)$$

$$e^{\zeta(s)} = \prod_{n=1}^{\infty} e^{1/n^s}$$

(This uses the greek letter zeta)

Solutions:

‘‘Taylor expansion $e^x = \sum_{n=0}^{\infty} \frac{1}{n!} x^n$.’’

$\int_0^1 \frac{df}{dx} dx = f(1) - f(0)$

$e^{\zeta(s)} = \prod_{n=1}^{\infty} e^{1/n^s}$