

PHYS506 *L*^A_T_E*X*

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Problem 0

Hello World

Problem 1

Euler's formula, given by $e^{ix} = \cos x + i \sin x$, establishes the fundamental relationship between the trigonometric functions and the complex exponential function.

Problem 2

$$\int_{T_0}^{T_1} x^2 dx = \frac{1}{3}(T_1^3 - T_0^3)$$

Problem 3

$$\delta x = \sqrt{\frac{1}{N(N-1)} \sum_{i=1}^N (x_i - \bar{x})^2} \quad (1)$$

Problem 4

DMM Uncertainties

| DMM Model | MASTECH MS8268 |
|-------------|--|
| Resistance: | $\delta R = (1.2\% \text{ of rdg} + 2 \text{ digits})$ |
| DC Voltage: | $\delta V = (0.7\% \text{ of rdg} + 2 \text{ digits})$ |
| DC Current: | $\delta I = (1.2\% \text{ of rdg} + 3 \text{ digits})$ |

Problem 5

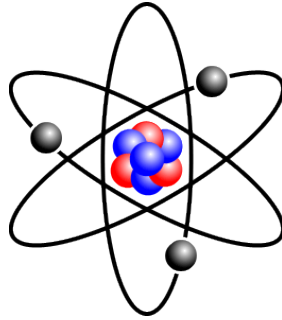


Figure 1: A picture of an atom.