

Assignment #1

Foundation of Physics: Phys 1001

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Due: Sept 21, 2011

Do problems #12, #26 and #60 of the book (Chapter 1).

1. Then, solve the following derivatives:

(a)

$$\frac{d}{dx}(5x + e^{5x})$$

(b)

$$\frac{d}{dx}(\cos^2[3x] + 2\sin^2([3x]))$$

2. Solve the following integrals:

(a)

$$\int_1^3 (4x^2 + 2) dx$$

(b)

$$\int_1^2 \cos(px) dx, \text{ where } p \text{ is a constant}$$