## Exponential and Logarithmic Functions Part 1

## **LOGARITHM LAWS** 5

a. Evaluate "n" such that

$$x = \frac{e^n - e^{-n}}{e^n + e^{-n}}$$

b. Simplify

$$\log[1 - (1 - (1 - x^2)^{-1})^{-1}]^{-\frac{1}{2}}$$

- c. Find the value of "x". If  $\log_2[\log_3(\log_2 x)] = 1$
- d. If  $\log(\frac{a+b}{4}) = \frac{1}{2}(\log a + \log b)$
- e. If  $\log_4(x^2 + x) \log_4(x + 1) = 2$