



Al-Mustaqbal University
College of Science
Forensic Evidence Department
Second Stage



جامعة المستقبل
AL MUSTAQBAL UNIVERSITY

كلية العلوم
قسم الادلة الجنائية

Lecture (5)

TUTORIAL OF LOG FUNCTIONS

المادة : Complex Analysis

المرحلة : الثانية

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Example: write the expression in logarithmic form

1. $7^5 = 16807$

2. $(16)^{\frac{3}{4}} = 8$

3. $(\frac{1}{3})^{-2} = 9$

4. $3^4 = 81$

5. $(6)^{-1} = \frac{1}{6}$

Example 2: write the expression in exponential form.

1. $\log_2 32 = 5$

2. $\log_7 49 = 2$

3. $\log_{16} 4 = \frac{1}{2}$

4. $\log_{\frac{1}{5}} \frac{1}{625} = 4$

5. $\log_9 \frac{1}{81} = -2$



Example 3: determine the exact value of each of the following without using a calculator.

1. $\log_7 1$

2. $\log_3 3$

3. $\log_3 x = -4$

4. $\log_x 625 = 4$

5. $\log_x 100 = -2$

6. $\log_7 7^5$

7. $\log_7(7^3 \cdot 7^8)$

8. $\log_2(3x)$

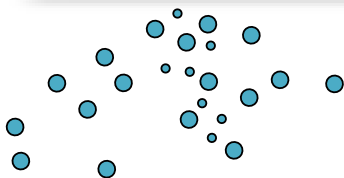
9. $\log_a\left(\frac{49}{7}\right)$

10. $\log_a\left(\frac{2^4}{2^{10}}\right)$

11. $\log_5 6^2$



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التغذية الراجعة