

**Inequalities****Advanced****Logarithmic**

1.  $\ln\left(\frac{1}{x}\right) \geq \ln(x)$

2.  $\log_4(x) + 8 \geq 10$

3.  $\log_4(b) > 5$

4.  $(-\log_{10}(x)) \geq 0$

5.  $\log_{11}(x + 7) < 1$

6.  $\log_8(-6x) < 1$

7.  $0 > \ln(x - 8)$

8.  $\ln(4x - 1) < 2$

9.  $\ln(2x - 3) + \ln(x - 1) > 0$

10.  $\log_{10}(x - 2) + \log_{10}(9 - x) < 1$

**Answers****Inequalities****Advanced****Logarithmic**

1.  $0 < x \leq 1$

2.  $x \geq 16$

3.  $b > 1024$

4.  $0 < x \leq 1$

5.  $-7 < x < 4$

6.  $-\frac{4}{3} < x < 0$

7.  $8 < x < 9$

8.  $\frac{1}{4} < x < \frac{e^2 + 1}{4}$

9.  $x > 2$

10.  $2 < x < 4$  or  $7 < x < 9$