AP Statistics Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Logarithm Review Period\_\_\_

**Solve each equation. Check your solutions.**

**1.** $log\_{7}$ *n* = $\frac{2}{3}$ $log\_{7}$ 8 **2.** $log\_{6}$ *x* + $log\_{6}$ 9 = $log\_{6}$ 54

**3.** $log\_{9}$ (3*u* + 14) – $log\_{9}$ 5 = $log\_{9}$ 2*u* **4.** $log\_{3}$ *y* = –$log\_{3}$ 16 + $\frac{1}{3}$ $log\_{3}$ 64

**5.** $log\_{10}$ (3*m* – 5) + $log\_{10}$ *m* = $log\_{10}$ 2 **6.** $log\_{8}$ (*t* + 10) – $log\_{8}$ (*t* – 1) = $log\_{8}$ 12

**7.** $log\_{10}$ (*r* + 4) – $log\_{10}$ *r* = $log\_{10}$ (*r* + 1)  **8.** $log\_{10}$ 4 + $log\_{10}$ *w* = 2

**9.** 3 $log\_{5}$ ($x^{2}$ + 9) – 6 = 0 **10.** $log\_{6}$ (2*x* – 5) + 1 = $log\_{6}$ (7*x* + 10)