

HW 66

1.  $10^0$

2.  $10$

3. natural,  $e$

4.  $a^{a^x} = x$

7.  $4^2 = 16$

8.  $7^3 = 343$

9.  $9^{-2} = 1/81$

10.  $10^{-3} = 1/1000$

11.  $32^{25} = 4$

15.  $\log_5 125 = 3$

16.  $\log_{13} 169 = 2$

17.  $\log_{81} 3 = 1/4$

18.  $\log_9 27 = 3/2$

23.  $2^{\log_2 y} = 16$   
 $y = 16$

24.  $25^y = 5$   
 $5^{2y} = 5^1$   
 $y = 1/2$

25.  $8^y = 1$   
 $y = 0$

26.  $10^y = 10$   
 $y = 1$

33.  $11^x = 11^7$   
 $x = 7$

34.  $3 \cdot 2^x = 1$   
 $x = 0$

35.  $\pi^x = \pi^1$   
 $x = 1$

36.  $9^x = 9^{\log_9 15}$

$\log_9 x = \log_9 15$

$x = 15$