Precalc Name_____

Practice solving base 10 and changing the base (M3 2.4 & 2.5)

Solve each equation. Round your answers to the nearest ten-thousandth.

1) $10^{x} = 96$

2) $10^{x} = 83$

3) $7 \cdot 10^{7n} = 70$

4) $-5 \cdot 10^{n-1} = -6$

5) $10^{p+5} - 5 = 24$

6) $-10 \cdot 10^{r+9} = -82$

7) $10^{10x} + 8 = 107$

8) $10^{-3m} + 6 = 58$

9) $10^{k+2} + 8 = 19$

10) $10^{x-2} + 10 = 32$

Solve each equation using ONLY the base 10 logarithm. Round your answers to the nearest ten-thousandth.

11) $2^{x+9} - 7 = 52$

12) $-4 \cdot 6^{-6m} = -84$

13) $e^{n+4} - 8 = -2$

14) $6 \cdot 3^{p+2} = 36$

15) $8 \cdot 12^{2x} = 75$

16) $7 \cdot 19^{-10a} = 73$

17) $7 \cdot 5^{x-1} = 82$

18) $20^{n-2} + 9 = 12$

Solve each equation. Round your answers to the nearest ten-thousandth.

19) $10 \cdot 10^{2-10m} + 9 = 25$

20) $-2 \cdot 10^{8x-7} + 3 = -92.2$

21) $-7.1 \cdot 10^{5.5-k} - 7 = -107$

22) $-10 \cdot 10^{5-v} - 1 = -58$

Answers to Practice solving base 10 and changing the base (M3 2.4 & 2.5)

1) 1.9823
2) 1.9191
3) 0.1429
4) 1.0792
5) –3.5376
6) –8.0862
7) 0.1996
8) –0.572
9) –0.9586
10) 3.3424
11) –3.1174
12) –0.2832
13) –2.2082
14) –0.3691
15) 0.4503
16) –0.0796
17) 2.529
18) 2.3667
19) 0.1796
20) 1.0847
21) 4.3513
22) 4.2441