

Name _____

Date _____

Advanced Algebra- **Assignment #6**

Unit 3: Exponential, Logarithmic, and Power Functions



I can solve an exponential equation with the change of base rule

Solve the following exponential equations by using the change of base method.

1) $3^x = 81$	2) $4^x = 16^2$
3) $4^x = .25$	4) $2^x = 512$
5) $4^x = 256$	6) $6^x = (216)^{12}$
7) $5^x = 625$	8) $(8^x)^x = (64)^2$

9) $7^x = 49$	10) $3^x = 19683$
11) $8^x = 512$	12) $5^x = 125$
13) $4^x = 65536$	14) $2^x = 512$
15) $6^x = 1296$	16) $2^x = 128$
17) $2^x = 16^3$	18) $8^x = 16777216$

19) $10^x = 1000$

20) $3^x = 243$

21) $2^x = 4$

22) $2^x = 8192$

23) $4^x = 4096$