GSE Algebra 1

Name_____ ID: 1

Solving Exponential Functions

Date_____ Period____

Solve each equation. No Changing Bases Required

1) $6^{-k} = 6^{k-1}$

2) $5^{2x} = 5^2$

3) $4^{-2p} = 4^{-2p+1}$

4) $3^{2-k} = 3^{-2k}$

5) $4^{3x} = 4^{-3x-1}$

Solve each equation. These Require Changing Bases or Trial and Error.

6) $2^{-2n} = 16$

7) $2^{n+3} = 4$

8) $8^{2m} = 64$

9) $8^{3b+1} = 64$

10) $4^{-3a} = 16$

Answers to Solving Exponential Functions (ID: 1)

1) $\left\{\dfrac{1}{2}\right\}$

2) $\{1\}$

3) No solution.

4) $\{-2\}$

5) $\left\{-\dfrac{1}{6}\right\}$

6) $\{-2\}$

7) $\{-1\}$

8) $\{1\}$

9) $\left\{\dfrac{1}{3}\right\}$

10) $\left\{-\dfrac{2}{3}\right\}$