Integrated Math 3   Name: _____

Unit 8: Exponential & Logarithmic Functions

8.1 Worksheet   Date: _____ Period: _____

Solving Exponential Equations with Common Bases

Solve for the variable in the exponential equation (Hint: find a common base).

1. $4^{6x+4} = 4^{2x-12}$

2. $3^{4x+5} = 27^{x-2}$

3. $25^{x-2} = 125^{x+4}$

4. $8^{3x+3} = 16^{3x-3}$

5. $3^{2x-3} = 3^{7x+22}$

6. $4^{3x} = 8^{x+1}$