

Name _____
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Date _____
Algebra II

Variable Exponential Equations with a Common Base

1. $2^4 = 16^x$

2. $9^{3x} = 3^{3x+1}$

3. $5^{x+1} = 125^{2x}$

4. $27^x = 9^{x+2}$

5. $4^{2b-3} = 8^{1-b}$

6. $64^{x-2} = 256^{2x}$

7. $3^{m+1} - 5 = 22$

8. $27 - 3^x = 0$