

Name \_\_\_\_\_  
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Date \_\_\_\_\_  
Algebra II

## *Variable Exponential Equations*

**Solve each of the following and round to the nearest hundredth if necessary:**

1.  $10^x = 182$

2.  $15^{2n-3} = 245$

3.  $3(5)^{2x} = 60$

4.  $4^x - 5 = 12$

5.  $8 + 2(4)^{x-5} = 14$

6.  $1 - 2(3)^{2x} = -5$

7.  $2(3)^{x+1} + 8 = 18$

8.  $4(2)^{2x} + 3 = 15$