

Day 2 Solving Exponential Inequalities

Name: _____

Practice Assignment

Block: _____

Solve the equation (hint: use your table of exponents).

1. $3^{12} > 9^{2x}$

2. $16^{-1} < 64^{-x-2}$

3. $4^{2x-2} > 2^{x+1}$

4. $9^{-x+5} > 27^{6x-10}$

5. $4^{x-5} \leq 16^{2x-31}$

6. $32^{3x-4} > 128^{4x+3}$

7. $3^{x-4} < \frac{1}{27}$

8. $\left(\frac{1}{27}\right)^{3x+13} \leq 9^{5x-\frac{1}{2}}$

9. $27^{x-2} \leq 81^{x+7}$