

Solve each exponential equation. Use logarithms if necessary.

1.  $4^x = 64$

2.  $9^x = 3$

3.  $3^{2x-1} = 27$

4.  $5^x = 30$

5.  $3^{2x} = 5$

6.  $6^{x-3} = 21$

7.  $8^{2x+1} = 20$

8.  $5^x = 2^{x+2}$

9.  $3^{2x+1} = 5^{x+1}$