

NAME: _____

UNIT 2 • REASONING WITH EQUATIONS AND INEQUALITIES

Lesson 1: Solving Equations and Inequalities

Practice 2.1.4: Solving Exponential Equations

Solve each equation for x .

1. $8 = 2^x$

2. $3^x = 81$

3. $\frac{1}{25} = 5^x$

4. $4^x = \frac{1}{64}$

5. $4 = \left(\frac{1}{2}\right)^x$

6. $\left(\frac{1}{6}\right)^x = 216$

7. $100 = 10^x$

8. $0.0625 = 0.5^x$

9. $223 = 6^x + 7$

10. $4 = 2401^x - 3$