

Math 1215 Hw 12**Name:** _____**Write each exponential equation in logarithmic form.**

1. $3^7 = 2187$

2. $12^2 = 144$

3. $5^3 = 125$

Write each logarithmic equation in exponential form.

4. $\log_{10} 100,000 = 5$

5. $\log_4 1024 = 5$

6. $\log_9 729 = 3$

Evaluate by using mental math.

7. $\log 1,000,000$

8. $\log 10$

9. $\log 1$

10. $\log_4 16$

11. $\log_8 1$

12. $\log_5 625$

The given coordinates are on $f(x)$, find the coordinates for $f^{-1}(x)$.

13. $(-2, 4)$

14. $(4, -7)$

15. $(0, 11)$

Find the algebraic inverse.

16. $f(x) = 15x - 1$

17. $f(x) = \frac{1}{4}x - 2$

18. To convert from x degrees Celsius to y degrees Fahrenheit, we use the formula **$y = f(x) = \frac{9}{5}x + 32$. Find the formula To convert from x degrees Fahrenheit to y degrees Celsius?**