

Warm-up 2/21/18**Write in log form.**

$$\textcircled{1} 5^x = 7$$

$$\textcircled{2} m^y = x + 2$$

Write in exponential form.

$$\textcircled{3} \log(2x+3)$$

$$\textcircled{4} \log_2 7x$$

Find the inverse.

$$\textcircled{5} y = 3^{x+2}$$

$$\textcircled{6} \log_4(x-2) + 7 = y$$

SWBAT solve exponential equations.

Agenda:

- **Warm-up**
- **Questions about homework**
- **Notes**
- **Practice**

Solve the equation.

$$2^{3x+2} = 16^x$$

$$3^{4x} = 27^{x+2}$$

What is the solution of $15^{3x} = 285$?

What is the solution?

$$5(3)^x = 25$$

$$5^{2x} = 130$$

$$4(5)^{x+1} = 64$$

Solve each equation.

7. $2^x = 8$

8. $3^{2x} = 27$

9. $4^{3x} = 64$

10. $5^{3x} = \frac{1}{125}$

11. $2^{5x+1} = 32$

12. $3^{-2x+2} = 81$

13. $2^{3x} = 4^{x+1}$

14. $3^{x+2} = 27^{2x}$

Solve each equation.

15. $2^x = 3$

16. $4^x = 19$

17. $8 + 10^x = 1008$

18. $5 - 3^x = -40$

19. $9^{2y} = 66$

20. $12^{y-2} = 20$

21. $25^{2x+1} = 144$

22. $2^{3x-4} = 5$

23) $2(5)^x = 26$

24) $7 + 3^x = 28$

25) $4(2)^x = 16$

26) $5(3)^{2x} = 45$