

Algebra 2 Honors
Homework-Solving Exponential Equations

Name: _____

Solve each exponential equation.

1. $6^{-4x+7} = 6^{5x-20}$

1. _____

2. $\left(\frac{1}{5}\right)^{x-3} = 25^{7x}$

2. _____

3. $\left(\frac{8}{343}\right)^{5x+2} = \left(\frac{2}{7}\right)^{-7x-4}$

3. _____

4. $9^{-6x+14} = 81^{-x-5}$

4. _____

5. $9^{3x-10} = \left(\frac{1}{27}\right)^{x+2}$

5. _____

$$6. \quad 2.5^{9x-3} = \left(\frac{125}{8}\right)^{2x+7}$$

6. _____

$$7. \quad 64^{-4x+2} = \left(\frac{1}{4}\right)^{5x-4}$$

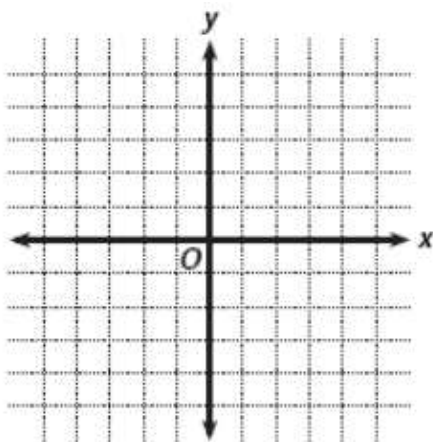
7. _____

$$8. \quad 7^{10x-3} = 49^{2x+6}$$

8. _____

For questions 9-10, graph the following functions without using a graphing calculator.

$$9. \quad y = 2(3)^{x+3} - 4$$

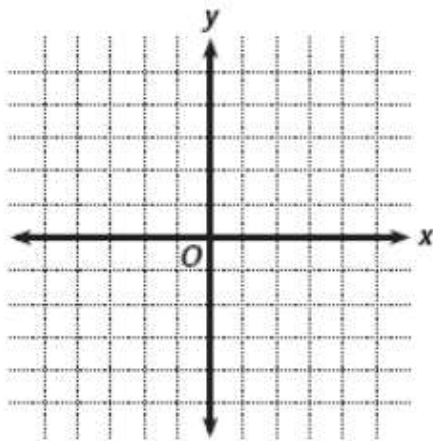


9. H.A.:

End Behavior:

Starting Pt:

$$10. \quad y = \log_4(x - 2) + 1$$



10. V.A.:

End Behavior:

Starting Pt: