

Name _____
Date _____

Advanced Algebra
Unit 3: Exponential, Log and Power Functions
Assignment #8

Find the horizontal Asymptote and the x intercept (if any)
Given the form $y = k+a*b^x$, k is the horizontal asymptote

1) $y = -2+3*(4)^x$

2) $y = 4+2^x$

3) $y = -18 + 6^x$

4) $y = 15-2^x$

We have been working on solving different types of functions in this unit. We have techniques for exponential functions and power functions. Solve the following equations using those techniques that we have been working on.

5) $4^{2x} = 16^{x-5}$

6) $3+18^x = 205$

7) $18x^5 + 326 = 1986$

8) $7^{3x-2} = 105^{2x}$

9) $\frac{3+2^x}{15} = 200$

10) $\frac{18x^4}{19} = 325$

11) $28+ 3*4^x = 1967$

12) $8^{6x-2} = 25^{2x}$