

- (1) Determine the equations of the exponential functions in the form $y = a \cdot 2^{x+p} + q$:
- (a) with $a = 2$ through $(2; 1)$ and with horizontal asymptote $y = -1$

- (b) with y-intercept -2 , a horizontal asymptote of 6 and $a = -1$.

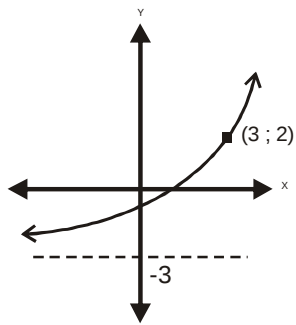
(2) Determine the equations of the exponential functions in the form $y = 3 \cdot b^{x+p} + q$:

(a) with $p = 1$ through $(1; 7)$ and with horizontal asymptote $y = -5$.

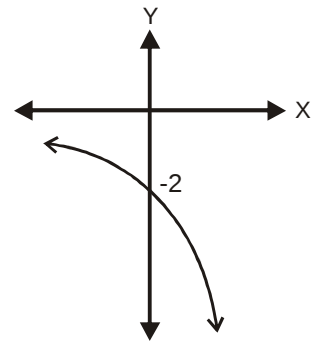
(b) with y-intercept at 12, a horizontal asymptote at 0 and $b = \frac{1}{4}$.

(3) Determine the equations of the following functions:

(a) $y = 5^{x+p} + q$



(b) $y = -2 \cdot \left(\frac{1}{2}\right)^{x+p} + q$

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.