1. Graph the function $y = \log(x - 2) + 1$ by shifting the function $y = \log(x)$. Find all its asymptotes and the point at which this function intercepts x-axis.

2. Evaluate $\sec(\arctan(-\frac{3}{4}))$.
   hint: Draw a right triangle and find the requested trigonometric function. Pay extra attention to the trigonometric quadrant this angle belongs!
3. Find x for the following equation.

\[ \log_3(x - 6) = 2 \log_3(x) \]  \hspace{1cm} (1)

Hint: There are two solutions. One of them is not acceptable. Explain why!