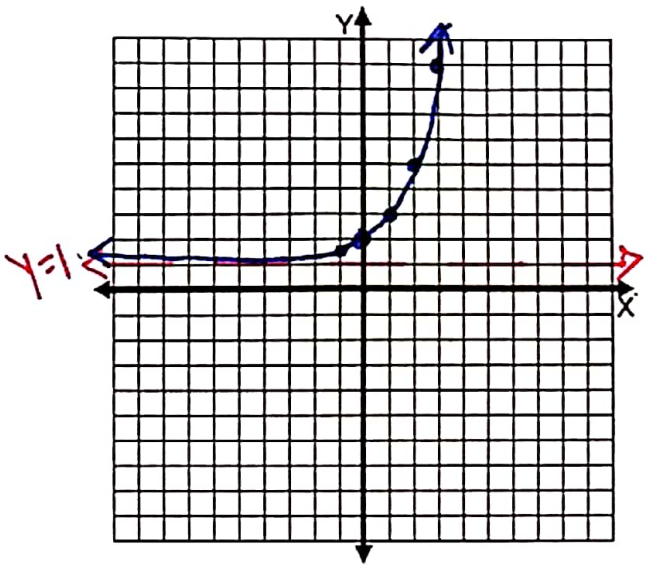
May 10

GUIDED NOTES: Graphs of Logarithmic and Exponential Functions

EX1. Graph $f(x) = 2^x + 1$



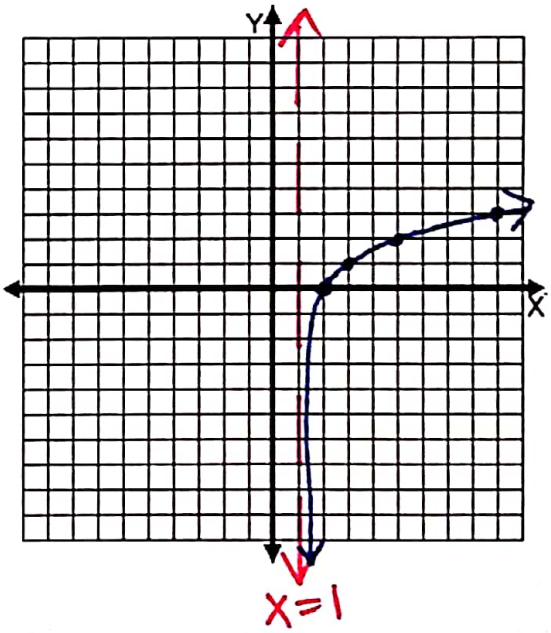
domain: $(-\infty, \infty)$

range: $(1, \infty)$

horizontal asymptote: $y = 1$

end behavior: as $x \to -\infty$, $y \to 1$
as $x \to \infty$, $y \to \infty$

EX2. Graph $f(x) = log_2(x - 1)$



domain: $(1, \infty)$

range: $(-\infty, \infty)$

vertical asymptote: $x = 1$

end behavior: as $x \to -\infty$, $y \to -\infty$
as $x \to \infty$, $y \to \infty$