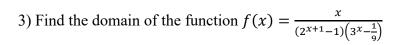
Worksheet 9/9/2024

- 1) Use the Law of Exponents to simplify the following expressions.
 - a) $2x^{0}$
 - $b)\frac{x^{-4}}{x^{-9}}$
 - c) $\frac{3x^2y^{-3}}{12x^6y^3}$
 - d) $\left(\frac{-2a^2b^2c^0}{3a^2b^3c^7}\right)^{-2}$

- 2) Which of number is bigger?
- a) e^2 and 2^e
- b) 2^x and 3^x
- c) 2^{-x} and $\left(\frac{1}{2}\right)^x$



4) Based on the graph of 2^{-x} , graph the function $f(x) = 3 - 2^{-x}$. Find its domain and range.