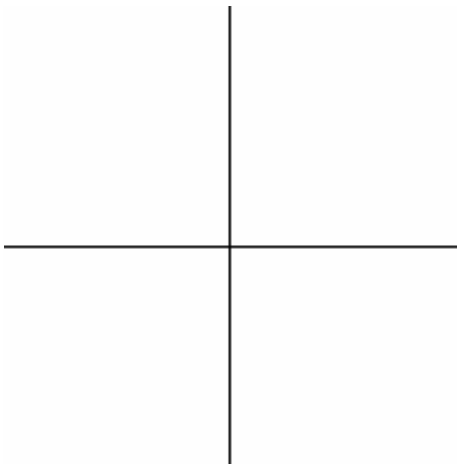


Name:

QUIZ – MATH GRADE 11 SL

- %) Given the function $f(x) = \log_5(-2x + 4) - 1$
- a. (5%) State the domain of the function: _____
- b. (15%) Write all the corresponding limit(s) (if any) **and conclusion**: _____
- c. (5%) Find the y intercept: _____
- d. (10%) Find the x intercept: _____
- e. (5%) Sketch the function (including asymptotes and intercepts)
- f. (5%) State the range of the function: _____
- g. (5%) State the interval in which the function increases: _____



2. (50%) PH level in a liquid can be modeled by the function: $PH(n) = -\log(n)$ where n is the concentration in mol/L of positive Hydrogen ions (H^+)

a. (15%) PH level ranges from 0 (Acid) to 14 (Base), find the domain of the function.

b. (10%) Lemon juice has PH level 2, find the concentration of Hydrogen ions.

c. (15%) The Hydrogen ions concentration in the blood of a healthy person is between $3.55 \cdot 10^{-8}$ and $4.47 \cdot 10^{-8}$ mol/L. Find the Range of PH level in the blood of a healthy person. Give your answer with 3 significant figures.

d. (10%) Sketch the function (including asymptotes and intercepts)

