

QUIZ#2

MATH 002 (021)

KFUPM

I.D.#:

Name:

---

**Q1.** Given  $f(x) = \log_{\frac{1}{3}}(9 - x) - 2$

Find

- x and y intercepts of f(x).
- equation of asymptote of the graph of f
- domain and range of f
- Sketch the graph of f (Show x and y –intercepts, asymptote)

**Q2.** Solve  $\log_2(3x + 8) = \log_2(2x + 2) - \log_{\frac{1}{2}}(x - 2)$

**Q3.** Evaluate  $(\log_5 3 + \log_5 7)(\log_{21} 5)$

**Q4.** Solve

a)  $2^{-|3x-2|} = \left(\frac{1}{32}\right)^2$

b)  $\ln x^3 = (\ln x)^2$

**Q5.** Find the supplementary angle of  $50^\circ 33' 23''$