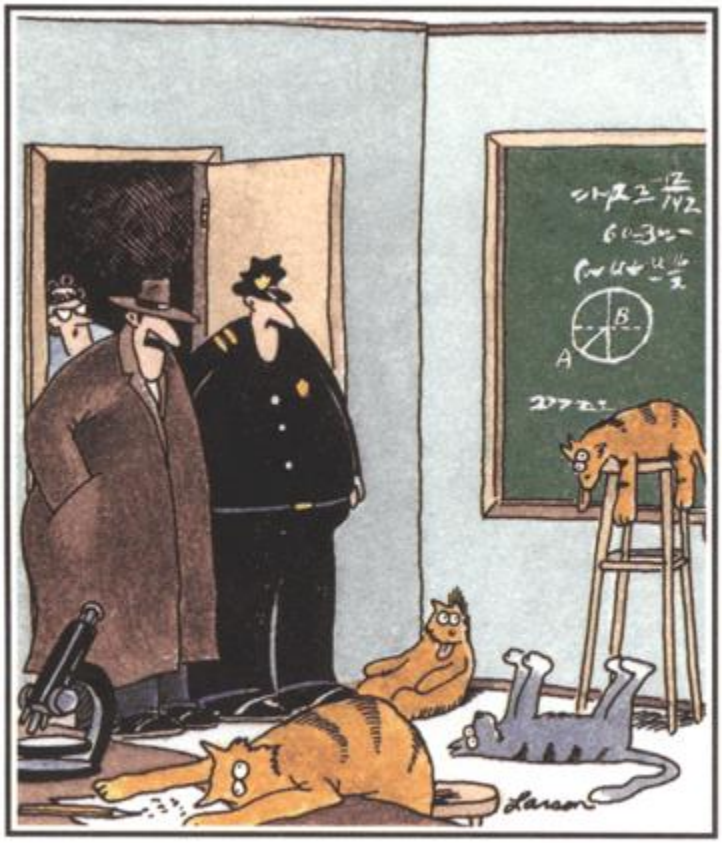
QUESTIONS FOR CLASS DISCUSSION: MATH 351

FALL 2018



"Notice all the computations, theoretical scribblings, and lab equipment, Norm. ... Yes, curiosity killed these cats."

27 August videos (Abbott & Costello, Colbert, Ramanujan summation)

29 August real number system; closure properties of sets with a binary operator

31 August monotone sequences; Completeness Property of **R**; convergence of $\left\{\left(1+\frac{1}{2^n}\right)^{2^n}\right\}$; combinations

5 September binomial theorem; Euler's number; equivalence relations

7 September notation (ε close, for large n); limits of sequences

10 September K-ε principle; more on limits

12 September limits, continued

14 September error term analysis

17 September laws of limits; subsequences

19 September squeeze theorem

21 September location theorems; subsequences

24 September subsequences; nested interval theorem

26 September nested intervals, subsequences, continued

28 September practice test review

1 October Test I

3 October cluster points, Bolzano-Weierstrass theorem

5 October Bolzano-Weierstrass, Cauchy sequences

10 October Cauchy sequences; supremum, infimum of a set

12 October Completeness theorem; intro to lim sup

15 October Continuity

17 October lim sup, lim inf, introduction to series

22 October Test II

24 October series (ratio and root tests; asymptotic convergence test; integral test; Cauchy's test)

26 October power series and intro to functions

29 October functions

31 October continuity; limits

2 November functions of one variable; continuity; limits; sequential continuity

5 November limit theorems; sequential continuity

9 November Bolzano's theorem

12 November Bolzano's theorem; IVT

14 November Compactness; Extreme Value Theorem

16 November Maximum theorem; continuous mapping theorem; review for test 3

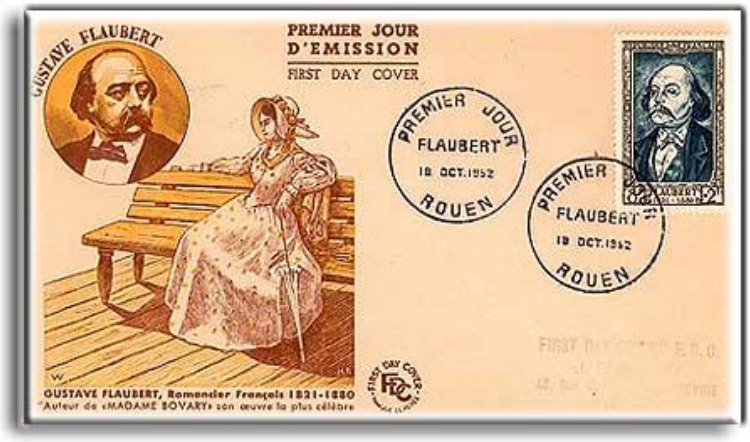
19 November *Test III*

26 November mappings; uniform continuity

28 November metric spaces

Work! God wills it. That, it seems to me, is clear.

- Gustave Flaubert (letter to Louise Colet, 1845)



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