MA 330 ESSAY # 3

Choose ONE of the topics below for your essay. Be sure to provide evidence in support of your conclusion. Your essay should be typed, double spaced, 12 pt Times New Roman font, at least 750 words.

(1) In *Journey Through Genius*, Dunham writes:

> There is debate as to the ultimate contribution of Arabian mathematicians ...while they studied the works of such giants as Euclid and Archimedes, they never duplicated their glories. Nowhere in the Islamic works do we find the kind of quantum leaps of mathematical knowledge that so characterized the succession of Greek scholars. In particular, the Arabs simply did not regard "proof" as being the heart of their mathematics, and in this sense mimicked the pre-Greek civilizations of the Near East.

Do you agree with Dunham? Why or why not? What historical evidence could one use to establish or refute the claims in this quoted paragraph? Be sure to provide evidence in support of your conclusions.

(2) As we have seen, the Nazis engaged in a racial/ideological purge of the academy, and many German mathematicians and scientists fled to other countries. What effect did these event have on the development of mathematics? Are there lessons we can learn from this that might be relevant today?

(3) Today there are many mathematical objects named after Nazi mathematicians. (Teichmüller theory, the Bieberbach Conjecture, Witt vectors, etc.) What do you think of this practice? What do you think of the practice of naming mathematical objects after people in general?