

Name:

Math 490, Spring 2013: Homework #8
Due Thursday, March 28, 2013

1. Look up *Gauss' Circle Problem*.
 - a. When was *Gauss' Circle Problem* originally stated? (Cite your source(s).)
 - b. What is the current status of *Gauss' Circle Problem*? That is, has the problem been solved completely or are only partial results known? Give details and cite your source(s).
2. What is $\lim_{n \rightarrow \infty} \frac{(2 \cdot 2)(4 \cdot 4)(6 \cdot 6) \dots (2n \cdot 2n)}{(1 \cdot 3)(3 \cdot 5)(5 \cdot 7) \dots (2n-1)(2n+1)}$? You are allowed any resources, but please cite them. You need not prove your answer, but try to find/get the idea of at least one proof strategy.
3. Write a description of your presentation topic and a rough draft that outlines what you will present; also cite references selected thus far and name your presentation partner.

From TEXT:

10.2: 1-3

10.3: 2-10, 12

10.4: 1-3