

MA 330 HOMEWORK
DUE WEDNESDAY, JAN 21

This problem set may be handwritten.

Problem 1: Prove that $\sqrt{3}$ is irrational.

Problem 2: Extending the comments on page 13 of JTG, during Step 1 of the quadrature of the rectangle, sketch a proof (using compass and straightedge only) that one can bisect a given line segment. NOTE: If you are stuck, look at Proposition I.10 of Euclid's Elements (for an online version there is a link on the course website).

Problem 3: Explain why squaring a geometric object is called "quadrature."