

Math 234 Preview Exercises

Sections 4.4 and 4.5

NAME

Read Sections 4.4 and 4.5 in the textbook and answer the following questions. *Hand in this worksheet at the next class.*

1. How is " $n \operatorname{div} d$ " different from " $n \operatorname{mod} d$ "?

2. In what sort of situation would you use the *method of proof by division into cases*?

3. What is the *method of proof by contradiction*?

4. What contradiction occurs in Example 4.5.3? How does this contradiction imply that the sum of a rational number and an irrational number is irrational?

5. What is the *method of proof by contraposition*?