

MATH 613. Fall 2021.

Homework #5. Due: November 16, 9:35am, in class. No late homework will be accepted.

Please write down clearly or type your solutions. It can be considered incorrect if it is hard to read. Collaboration is allowed, but everyone must write down and submit his/her solutions in his/her own words.

If you want to submit a hard copy, please write down your name and staple your sheets together before you submit your homework. If you want to submit this assignment electronically, you should submit it through Gradescope.

All the questions mentioned below are in the Exercise part of the corresponding sections in the textbook.

- Required submission questions:

- Section 6.1: 14, 21, 30.
- Section 6.2: 8, 11.

(Remark: For 6.1.30, add the condition that G is not a forest. The *girth* of a non-forest is the length of its shortest cycle; the *girth* of a forest is ∞ .)

- Suggested practice:

- Section 6.1: 18, 25, 28, 29.
- Section 6.2: 10.