

**Part I: (due at the beginning of class Wednesday, March 20)**

Read the purple Introduction to Series handout.

**Reading Questions**

1. Examples 1 and 2 on the Introduction to Series handout.

Remember that what you turn in for Part I should have 3 parts, as mentioned in the syllabus:

- (a) Your responses to the reading questions.
- (b) Your own questions/comments on the reading/anything else we've been doing in class.
- (c) The amount of time you spent on Part I (including the time spent reading/watching).

**Part II: Exercises (prepare for class Wednesday, March 20)**

Examples 3 and 4 on the purple Introduction to Series handout.

**Part III: Homework Problems (due Wednesday, March 20 at the beginning of class)**

1. In each part, give an explained example of a **non-constant** sequence that meets the criteria given or explain why such an example is impossible to give.
  - (a) a sequence that's bounded above by 1 and below by  $-1$  that converges to 0
  - (b) a sequence that's bounded above by 1 and below by  $-1$  that converges to  $-1$
  - (c) a bounded sequence that is not monotone
  - (d) a decreasing sequence that does not converge
  - (e) an increasing sequence that is bounded above but does not converge