Homework Assignment 16

Assigned Tuesday January 21; due Friday January 31, 2PM at SS 1071

web version: http://www.math.toronto.edu/~drorbn/classes/0203/157AnalysisI/HW16/HW16.html

Required reading

All of Spivak Chapter 18.

To be handed in

From Spivak Chapter 18: 1 (iii, vi, x), 4 (even parts), 7 (even parts), 8 (even parts), 21, 47 (e).

Recommended for extra practice

From Spivak Chapter 18: 1 (the rest), 4 (odd parts), 6, 7 (odd parts), 8 (odd parts), 18, 34, 47 (a–d), 49.

An aside

Here's a short Mathematica session that computes an approximation of the number e for which $\int_1^e \frac{dt}{t}$:

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drorbn@coxeter:~/classes/157AnalysisI:1 math
Mathematica 4.1 for IBM AIX
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In[1]:= s = 0; t = 1; dt = 0.000001;

In[2]:= While[(s += dt/t) < 1, t += dt]; t

Out[2]= 2.71828
```

Just for fun

How far can you reach by stacking up n identical domino pieces, before your tower will lean over and fall?