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Math U141 class notes, Fall 2005

Prof. A. Iarrobino

For Sections

Section A: meeting MWTh at 9:15 AM in 202 Kariotis,

Section B: meeting MWTh at 10:30 AM in 208 Kariotis

Look here for specific assignments and brief comments on what we did (or will do) in class. This will be updated at least weekly and usually by 4:30 PM each class day. TBA = "to be announced"

Syllabus (goals, assignments) for A. Iarrobino and E. Donovan sections Math U141 syllabus (pdf file)

Information sheet (grading, etc. for Prof. Iarrobino's sections) Math U141 Information (pdf file)

Course home page (you probably already know this information): Math U141 home page (html)

Course outline (broad strokes) Course Outline

First day of classes: Wednesday September 7. Went over syllabus,

information, took placement quiz; then we reviewed the equation of a line, both slope-intercept y=mx+b form and point slope form. We found midpoints, and points a fraction - as two thirds - along the line segment between two points.

HW: Worksheet #1A, #1A-1C. Also Text Section 1.2 begin #2,7,9.

Note: Class Pacs will be ready at Reprographics (next to book buy-back behind the Campus bookstore) late Friday afternoon (September 9 after 4 PM) or Monday morning.

Thursday, September 8. Placements back, Problem #1B on WS #1A.

We then studied average rate of change. Example of y=3x^2, where y is height of a ballon in feet, x minutes after release. Average slope here has units of feet/minute and is also average velocity of the balloon.
The average slope between P(1,3), Q(4,48) is 15;
The average rate of change between P(1,3) and Q'(1.1,3.63) is 6.3 (slope of PQ')
The average rate of change between P(1,3) and (1.01,3.0603) is 6.03.

We then calculated the average velocity of the balloon between P(1,3) and Q above 1+h, and found it to be 6+3h.

Instantaneous rate of change (velocity here): the limit as h goes to zero of the average rate of change from P to Q is 6 feet per minute, which is the vertical velocity of the balloon at time 1 minute.

HW for Monday: Section 1.2 (syllabus HW)
Section 2.1: read the section and do #1,3,4,5,12.
(if time) read Section 1.3 on concavity

Questions or comments: mailto:iarrobin@neu.edu. This is the quickest way to reach me, or come by 526 NI, MWTh.

Math U141 Fall 2004 Information (html) Information, Office hours for Prof. Iarrobino sections

Math U141 home page (html)

Math Tutoring Free, at NU, available to Math U141 students.

Links to other calculus resources on the web:

Visual Calculus (U. Tenn)

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URL:http://www.math.neu.edu/~iarrobino/AIMathU141.F04.classnotes