Math 130
Spring 2011
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"Exam 3" Boxes

It's almost over!

7.1 Ratios and Proportions
- definitions
- equivalent ratios
- Ratios to fractions and back
- Teacher's Solution for WPs

7.2 Changing Ratios + %
- changing ratios: before and after
- %: definition, phrases on page 175 of P&B (what is the whole unit?)
- Teacher's Solution for WPs

7.3 The Unitary method
- equal percentages do not mean equal amounts! (Example 3.3)
- also read Exercise 3.5

7.4 Rates
- definition
- unit conversion
- 3 kinds of problem
  - Red Bull
  - driving there + back
  - work together

Solve each type.

8.1 Negative Numbers
- models
- definition: $a<b$, $|a|$, $-a$
- teaching sequence for addition (with model, picture, interpretation)

8.2 Arithmetic w/ Integers
- teaching sequences for $-$, $\times$, $\div$ with model, picture, interpretation
- WPs with integers (on practice 3)

SKILLZ: mental math with integers

8.3 Steps towards Alg.
- definition of $-a$ as additive inverse
- inequalities

Chapter 9
- definition: whole #, integer, rational #, real #

9.1 Decimals
- place value
- models/pictures
- mult. and dividing by 10, 100, etc (place value work)
- algorithms and models for $+$, $-$, $\times$, $\div$
- teaching sequences

9.2 Rational # & Decimals
- how to get decimal from fraction
- every rational # can be written as a finite or repeating decimal. Why?

9.3 Real # & Decimals
- how to get decimal expansion
- definition irrational #
- operations on real #

9.4 $\sqrt{2}$
- examples of irrational #'s, in particular $\sqrt{2}$

Newton's Method is <u>not</u> on the Exam

Some advice
- always make sure that you know while model, picture, or interpretation you would use to explain each concept [for the whole class, not just chaps 7-9]