Math 13700 Assignment Sheet Spring 2014

Text: Reconceptualizing Mathematics, 2nd Edition by Sowder, Sowder, & Nickerson. W.H. Freeman, 2014
Follow instructions written here in addition to instructions in the text. Math 13700 web page: www.math.purdue.edu/MA13700

Lesson	Section	Page	Problems
1	1.1/ 1.2	p 9	2b (you can purchase a fraction of a meter of wire mesh), 3, 5, 8
2	1.3	p 16	1(name a metric and an English unit), 2, 3 (find info for Lafayette and your home town or other favorite city), 5(different from text ans)
3	1.4	p 19	5, 6, 7, 8, 9 Also, make up your own problem that is similar to these and show your diagram and solution.
4	2.1/ 2.2	p 23	4d: MCLVII, e: MDL, f: CCXXV, 5d: three hundred sixty-five, e: one thousand two hundred eight, f: five hundred twenty-three 6d: XCIV, e:MMXLII, f: CMIX p 25 1bfjkl, 5, 8
5	2.3	p 32	2c, 3k: 25_{ten} in base four, l: b^2+3b in base b, m: 4^2 in base four, n: 143_{ten} in base five, 4 (use base five), 5c, 6def, 7, 8, 9def, 15de, 16fgh, 17e, 18ef
			No class will be held on Monday, January 27, 2014
6	2.4	p 38	1: 210_{three} and 122_{three}, 2e: $103_{four}+231_{four}$, f: $341_{five}-234_{five}$, 4cd, 5e: $523_{six}-144_{six}$, f: $817_{nine}-208_{nine}$, 7c, 8d, 9 (use base seven)
			Draw pictures of pieces for all but problems 4 and 5.
			Read pp 39-40, section 2.5. Rename 6400 in four distinct ways.
7	3.1	p 44	1, 2, 3 start with: C | D ,7, 8
8	3.2	p 50	2a (Draw a diagram to represent this problem. Answer the question written in the text.),2b, 3, (Write out the incorrect work a student might do for each example and also the correct work needed.), 4b, 5bc, 6, 7, 11abde
9	3.3	p 55	2 Case A, B, C: you do 26 + 57, Case E: you do $86-9$ using both methods, Case G: you do $700-359$, 5 (show both methods for each problem)
10	3.4	p 62	2, 4, 6bcf, 8, 12ab (NO, they are not the same.), 14
			Exam 1 Tuesday, February 11, 2014 at 6:30 pm in GRIS 180
			No class will be held on Wednesday, February 12, 2014.
11	3.5	p 68	2, 3, 4, 5acd, 7 (Write two different types of division problems. Solve.), 8(indicate which division concept is used, make a diagram and solve)
12	3.6/ 3.7	p 73	2, 3, 4 (Use $2973\div14$), 5 (Use $56\div8$)
		p 75	2, 4cd, 6ef, 7b
13	4.1	p 81	1bc, 1e: $612\div3$, 2c: $322_{four}+13_{four}$, d: $200_{five}-43_{five}$, 5 if $1800\div12=150$, then i: $1800\div6=$__, j: $1800\div24=$__, k: $900\div12=$__, l: $3600\div12=$__ Read pp 84-85. Use 2 sentences to answer p85 #5.
14	5.1	p 89	1ac, 2bcef, 3bcef, 4bd, 5, 6 – make a photocopy of the bottom of p89
15	5.2	p 93	4, 5 (choose one method that you could use to mentally estimate 27×43), 6acde, 7bcd, 8bcdefg
16	5.3	p 96	1, 2(assume a constant speed of 50mph), 3, 4(determine the cost per person to pay for AIDS research – round to the nearest penny.), 5(NO minimum number of words – any number will do)

17 5.4 p 98 1 (express your answers in scientific notation) d: $(12.32\times10^5)\times(4\times10^3)$,
e: $(12.32\times10^5)\div(4\times10^3)$, f: $(12.32\times10^3)\div(4\times10^5)$, 3 (write the problem and the answer in sci notation)
e: $3{,}900{,}000\times260{,}000{,}000{,}000$ f: $1{,}200{,}000{,}000\div24{,}000{,}000$ g: $0.000000042\div600{,}000$
h: $0.0000063\div0.00005$ 4, 11: Change 13 ft/sec into yds/hr. Use sci notation for your answer.
12: Describe (in words) the steps needed to change 564.1×10^{-4} to sci notation. Explain how you know what steps to use. Read pp 99-100, section 5.5.

18 6.1 p 104 2abc (use rectangular regions), 4, 8, 9abde, 10b (use a circle and a rectangle) 12, 13, 14, 15b, 18, 22cd

19 6.2 p 112 1ab, 2*c, 3*ab (*use rectangles), 5bc, 6abe (tell how you know), 7bc, 8a, 9, 10, 11cde, 12a, 13 (explain what happens across the middle as you fill in squares or circles)

20 6.3 p 118 1d (show how you know), 2bf, 4bd, 6, 8 (make a neat list), 9, 10, 12

Exam 2 Tuesday, March 11, 2014 at 6:30 pm in GRIS 180

21 6.4 p 122 1, 2, 6, 8bcd (don't use com denom), 9, 10hijklmnop, 12cdefghi, 14, 15, 16, 18
Read pp122-123, section 6.5. Summarize the four critical ideas.

No class will be held on FRIDAY, MARCH 14, 2014.

22 7.1 p 129 2, 4bcd, 8, 10, 13, 15bdg, 16c

23 7.2 p 134 1, 4, 5efgh, 9, 10, 11ad (use p.b. pieces), 16, 17, 18a

24 7.3 p 141 2, 5, 8df(use p.b.pieces), 9, 11, 14ef, 16(use fractions in part c), 18

25 8.1/ 8.2 p 150 1,3 p 154 1, 3, 6, 7ae, 9a
Read pp 156-158, section 8.3. What is NCTM? Name two publications.

26 9.1/ 9.2 p 160 1, 5 (Make LARGE (all sides > 6cm) drawings of scalene obtuse triangles. Measure each side in cm. Use a protractor to measure each angle.)
p 166 2, 5, 7, 18, 21 (Ignore a-d. Answer question with unit ratio and with proportion.)

27 9.3 p 173 1, 4, 5, 6, 8, 9, 12, 13, 17, 21fghij Read pp 178-179, section 9.4.
Print off worksheet for L28 and bring with to class.

28 10.1/10.3 p 183 1b, 3cd, 5, 6 p188 1b, 2, 3def, 4cd, 5

29 10.4 p 194 1efgh, 2cdefgh, 3(circles), 4defgh(no drawing), 6, 7(2 problems), 9bc, 10b

30 10.5 p 199 2abcdefghijk, 3cd, 4, 5, 6b (write a word sentence to ans quest), 9bcdefgh

Exam 3 Tuesday, April 15, 2014 at 8:00 pm in GRIS 180

No class will be held on Wednesday, April 16, 2014.

31 10.6 p 205 1, 2, 3, 4a (follow instructions for part c), 6 (use 7 numbers: create an add table and a mult table and also list all 11 prop with ex), 10defg, 11defgh

32 11.1 p 212 2bc, 3b, 8, 10, 11cfij, 12, 14, 16bc, 17, 18, 19, 20, 21(show arithmetic for each number until you find the next perfect number.)

33 11.2 p 218 1, 3f, 4bc, 7bdf, 8de, 9, 10dg, 11cd, 12cd, 13, 14bcd

34 11.3 p 225 1bd, 2bc, 4, 6de, 10, 11, 13ce, 14ce, 16, 20, 21c: 84×47, 24b

35 11.4 p 232 4, 7bc, 8cd, 11, 13, 17, 19, 23cd, 27fghi, 28df, 30 (draw one result)
11.5 p 236 1, 2, 3