Review for Math 025 Final Exam    Fall 2008
Sec 1.1-1.8, 2.1-2.8, 3.1-3.4, 4.1-4.2, 4.4-4.6, 5.1-5.6, 6.1-6.4, 6.6

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**Multiple Choice questions**
1) Add or subtract numerical fractions, use LCD, write answer in lowest terms
   Worksheets book, sec 1.1, objective 4, pg 4
   Sec 1.1  pg 12  #55-66  Ch 1 Test pg 93 #2 (prepare for bigger denominators)

2) Simplify an expression using the order of operations
   Worksheets book, sec 1.2, objective 2-3 pg 8, objective 5 pg 26-27
   Sec 1.2  pg 22 #35-50  Ch 1 Review pg 88 #9-12  Ch 1 Test pg 93 #13-16

3) Simplify an expression by finding the sum and/or difference of integers
   Worksheets book, sec 1.5, objective 4, pg 23 #22
   Sec 1.5 pg 49 #17-26, #50-58 & #65-72
   Ch1 Review pg 90 #56-66   Ch 1 Test pg 93 #10, 12

4) Simplify an expression by removing parentheses and combining like terms
   Worksheets book, sec 1.8, objective 4 pg 35
   Sec 1.8 pg 81 #65-76  Ch 1 Review pg 92 #123-126  Ch 1 Test pg 94 #32

5) Solve an equation by clearing fractions first
   Worksheets book, sec 2.3, objective 2 pg 47 #10 & 13
   Sec 2.3  pg 115 #25-28 & #39-40

6) Solve a given formula for an indicated variable
   Worksheets book sec 2.5, objective 1 pg 57-8
   Sec 2.5 pg 141 #63-86  Ch 2 Review pg 184 #29-30

7) Solve an equation by clearing fractions first (or using cross-products)
   Worksheets book, sec 2.6, objective 2 pg 65 #18
   Sec 2.5 pg 147 #37-42  Ch 2 Review pg 185 #42  Ch 2 Test pg 188 #12

8) Solve an inequality  (simple inequality, not a compound inequality)
   Worsheets book, sec 2.8, objective 2-4 pg 76-78
   Sec 2.8 pg 175 #41-54  Ch 2 Review pg 186 #59-63  Ch 2 Test pg 189 #17

9) For a given linear equation, fill in the ordered pairs & choose the graph of the equation
   Worksheets book, sec 3.2, objective 1 pg 88-90, objective 3 pg 91-94
   Sec 3.2 pg 215 #33-56  Ch 3 Review pg 248 #2-5 combined with #14-15
   Ch 3 Test pg 251 #1 combined with #4-7
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Multiple Choice questions continued

10) Find the slope of the line containing two given points
Worksheets book, sec 3.3, objective 1 pg 98
Sec 3.3 pg 229 #26-35 Ch 3 Review pg 248 #17-18 Ch 3 Test pg 251 #9

11) Write the slope-intercept equation for the line containing two given points
Worksheets book, sec 3.4, objective 4 pg 105-106
Sec 3.4 pg 241 #46-52 Ch 3 Review pg 249 #29 Ch 3 Test pg 251 #16

12) Simplify an expression using the power rules
Worksheets book, sec 4.1, objective 6, pg 112-113
Worksheets book, sec 4.2, objective 1-2, pg 115-116
Worksheets book, sec 4.4, objective 4, pg 117-118
Summary exercises on simplifying exponents pg 272 #1-42
Ch 4 Review pg 319 #1-12 & #17-28 Ch 4 Test pg 323 #1-6

13) Simplify a multiplication of two binomials (3 problems)
Worksheets book, sec 4.5, objective 1-3 pg 129-132
Worksheets book, sec 4.6, objective 1-2 pg 133-135
Sec 4.5 FOIL method pg 298 #37-53 Sec 4.6 Square of binomial pg 303 #3-14
Sec 4.6 (Sum)(Difference) pg 303-304 #24-34
Ch 4 Review pg 321 #55-61 & #63-66 Ch 4 Test pg 324 #17-20

14) Factor an expression using the Greatest Common Factor
Worksheets book, sec 5.1, objective 2 pg 145
Sec 5.1 pg 335 #35-54 Ch 5 Review pg 385 #1-4 Ch 5 Test pg 389 #2-4

15) Factor a trinomial with a leading coefficient of ONE
Worksheets book, sec 5.2, objective 1-2 pg 148-149
Sec 5.2 pg 341 #23-40 & #43-50
Ch 5 Review pg 385 #5-10 Ch 5 Test pg 389 #5 & 8

16) Solve an equation, involving a quadratic, by factoring and using the zero-factor property
Worksheets book, sec 5.3, objective 1 pg 151 practice factoring with non-1 lead coeff.
Worksheets book, sec 5.5, objective 1 pg 159-160
Sec 5.5 pg 367 #39-44 & #57-60
Ch 5 Review pg 386 #49-50 Ch 5 Test pg 390 #21-22
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Multiple Choice questions continued

17) Choose the correct diagram and variables to model a given application
   Worksheets book, sec 5.6, objective 1 pg 163-165 & objective 3 pg 166-167
   Ch 5 Review pg 387 #57-60 & 62    Ch 5 Test pg 390 #25-27

18) List the numbers for which a given rational expression is undefined
   (list the values that make the denominator zero)
   Worksheets book, sec 6.1, objective 2 pg 170
   Sec 6.1 pg 401 #13-24    Ch 6 Review pg 459 #3-5    Ch 5 Test pg 463 #2

19) Simplify a product or quotient of two rational expressions
   Worksheets book, sec 6.2, objective 1-2 pg 173-177
   Sec 6.2 pg 409 #29-56    Ch 6 Review pg 460 #15-20    Ch 6 Test pg 463 #6-8

20) Simplify an addition or subtraction of two rational expressions
   Worksheets book, sec 6.4, objective 1-2 pg 184-185, objective 3 pg 185-186 #22-30
   Sec 6.4 pg 423 #35-46    Ch 6 Review pg 460 #32-36    Ch 6 Test pg 463 #14 & 16

21) Solve equations involving rational expressions
   Worksheets book, sec 6.6, objective 1-2 pg 193-195
   Sec 6.6 pg 440-441 #23-33 & #43-70
   Ch 6 Review pg 461 #44-46    Ch 6 Test pg 463 #19

Completion questions

22) Rewrite a number as a product of its prime factors (168 = 2 · 2 · 2 · 3 · 7)
   Worksheets book, sec 1.1, objective 1, pg 2
   Sec 1.1    pg 11 #11-22

23) Rewrite a fraction in lowest terms
   Worksheets book, sec 1.1, objective 2, pg 3
   Sec 1.1    pg 11 #26-30    Ch 1 Test pg 93 #1

24) Find the quotient and write in lowest terms
   Worksheets book, sec 1.1, objective 3, pg 4
   Sec 1.1    pg 11 #43-48    Ch 1 Review pg 88 #1    Ch 1 Test pg 93 #3
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Completion questions continued

25) Name all the sets, from natural numbers, whole numbers, integers, rational numbers, irrational numbers, and reals, to which a given number belongs.
Worksheets book, sec 1.4, objective 1, pg 17
Sec 1.4 related questions pg 39 #9-14, #15-18, #19-20
Ch 1 Review pg 90 #33-34 Ch 1 Test pg 93 #7

26) Simplify an expression with absolute values and opposites
Worksheets book, sec 1.4, objective 3, pg 19 #22
Sec 1.4 pg 39 #29 & #35-40 Ch 1 Review pg 90 #47-50

27) Translate a word phrase or statement to an algebraic expression or equation
Worksheets book, sec 1.8, pg 36
Sec 1.8 pg 82 #77-82 Ch 1 Review pg 92 #127-128 Ch 1 Test pg 93 #9

28) Show how to solve an equation
Worksheets book, sec 2.3, objective 1 pg 46 #5-9, objective 3 pg 48-49 #19-20
Sec 2.1 pg 101 #61-62 & #65-66 & Sec 2.3 pg 115-116 #13-14 & #35-38 & #43-46
Ch 2 Review pg 184 #13-14 & #17-18 Ch 2 Test pg 188 #3 & 5

29) Set-up the variable expressions and equation for a word problem.
Then solve the problem.
Worksheets book, sec 2.4, objective 3-4 pg 53-55
Sec 2.4 pg 126-129 #11-34 Ch 2 Review pg 184 #19-24 Ch 2 Test pg 188 #6-8

30) Set up ONLY for a word problem with percents (money or mixture), price each or motion. Do NOT solve.
Worksheets book, sec 2.7, objective 2-5, pg 70-74
Sec 2.7 pg 158-162 #15-24 & #25-28 & #29-34 & #45-53
Ch 2 Review pg 186 #49-54 Ch 2 Test pg 189 #15-16

31) Use the slope and y-intercept to graph a line given the equation of that line
Worksheets book, sec 3.2, objective 3-4 pg 91-94.
Practice using slope-intercept form
Sec 3.4 pg 240 #17-24 Ch 3 Test pg 251 #4-8 (ignore intercepts question)
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Completion questions continued

32) Simplify the sum or difference of two polynomials
Worksheets book, sec 4.4, objective 5 pg 126-127
Sec 4.4 pg 290 #49-50 & #59-60 & #63-64
Ch 4 Review pg 320 #48-49 Ch 4 Test pg 323 #14

33) Completely factor any polynomial
Worksheets book, sec 5.4, objective 1-4 pg 155-158
Summary exercises in factoring pg 359 #1-80
Ch 5 Review pg 386 #31-42 Ch 5 Test pg 389 #2-19

34) Rewrite rational expression in lowest terms
Worksheets book, sec 6.1, objective 3 pg 171
Sec 6.1 pg 401-402 #29-52 Ch 6 Review pg 460 #7-10 Ch 6 Test pg 463 #5

35) Solve equations involving rational expressions
Worksheets book, sec 6.6, objective 1-2 pg 193-195
Sec 6.6 pg 440-441 #23-33 & #43-70
Ch 6 Review pg 461 #44-46 Ch 6 Test pg 463 #19

Matching section – 3 parts
36) Match a list of properties to a list of equations demonstrating the use of the properties.
Worksheets book, sec 1.7, mix of all objectives pg 29-31
Sec 1.7 pg 74 #11-30 Ch1 Review pg 91 #107-114 Ch 1 Test pg 94 #24-28

37) Match a group of graphs of straight lines to the correct linear equations
Worksheets book, sec 3.2, objective 3-4 pg 91-94, given the graphs match equa.
Sec 3.4 pg 239 #5
On pg 233-234 look at examples 2-4, consider a list of those equations separate from those graphs, match the equations to the graphs