

**Item Analysis of Mat-010 Final Exam fall, 2009 based on final exams of 462 Mat-010 and Mat-010B (day, evening and off-campus) students**

**Submitted by Susan Shulman**

<b># of wrong responses (out of 462)</b>	<b>% of students getting a wrong response</b>	<b>Question #</b>	<b>Objective</b>
278	60%	50	Division of integers
236	51%	9	Multi-step word problem involving the cost of fencing materials
223	48.3%	21	Fractional word problem
216	46%	34	Percent decrease word problem
201	43.5%	20	Fractional word problem w/mixed number sub
194	42%	7	Whole number order of operations
185	40%	42	Find the area of a circle given the diameter
183	39.6%	5	Simplifying 0 divided by a number
177	38.3%	22	Writing a word name for a decimal
175	37.9%	38	Converting g to mg
172	37.2%	37	Converting m to cm
169	36.6%	48	Subtracting real numbers
169	36.6%	33	Solving a percent equation
164	35.5%	31	Converting a fraction to a percent
160	34.6%	15	Multiplying mixed numbers
160	34.6%	41	Find the circumference of a circle
155	33.5%	12	Multiplication of unit fractions
155	33.5%	16	Dividing mixed numbers
155	33.5%	36	Converting ounces to cups
154	33.3%	39	Pythagorean Theorem
153	33%	19	Adding mixed numbers
148	32%	26	Changing a fraction to a repeating decimal
141	30.5%	27	Solving a proportion with similar rect.
138	29.9%	45	Find the median of a set of numbers
135	29.2%	40	Find the area of a square
132	28.6%	23	Rounding decimals
131	28.4%	17	Adding fractions with different denominators
127	27.5%	18	Order of operations with fractions
120	26%	11	Simplifying a fraction
113	24.5%	32	Solving a percent word problem
112	24%	13	Multiplying fractions
112	24%	4	Solving a whole number word problem

<b># of wrong responses (out of 462)</b>	<b>% of students getting a wrong response</b>	<b>Question #</b>	<b>Objective</b>
110	23.8%	25	Convert a fraction to a terminating decimal
103	22.3%	49	Multiplication of integers
90	19.5%	44	Find the mean of a set of numbers
82	18%	14	Div of fractions (mixed number by a whole #)
77	16.7%	27	Solving a proportion
76	16.4%	29	Converting a percent to a decimal
64	13.9%	46	Find the mode of a set of numbers
62	13.4%	47	Addition of integers
58	12.6%	3	Multiplying whole numbers
57	12.3%	43	Finding the volume of a rectangular solid
56	12%	35	Converting feet to inches
51	11%	1	Subtracting whole numbers
49	10.6%	8	Solving a whole number word problem
48	10%	2	Place value
44	9.5%	30	Converting a decimal to a percent
38	8.2%	24	Subtracting unaligned decimals
37	8%	6	Solving a whole number word problem
33	7%	10	Change a mixed number to an improper fract.