

Item Analysis of Mat-010 Final Exam spring 2010 based on final exams of 344 Mat-010 and Mat-010B (day, evening and off-campus) students

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# of wrong responses (out of 344)	% of students getting a wrong response	Question #	Objective
244	70.9%	50	Division of integers
*156(out of 246)	63.4%	9	Multi-step word problem involving the cost of fencing materials
209	60.8%	34	Percent decrease problem
199	57.8%	20	Fractional word problem w/mixed number sub
172	50%	22	Writing a word name for a decimal
146	42.4%	42	Find the area of a circle given the diameter
142	41.3%	21	Fractional word problem
135	39.2%	33	Solving a percent equation
135	39.2%	37	Converting metric units (m to km)
129	37.5%	38	Converting metric units (kg to g)
128	37.2%	15	Multiplying mixed numbers
127	36.9%	32	Solving a percent word problem
126	36.6%	39	Pythagorean Theorem
122	35.5%	17	Adding fractions with different denominators
120	34.9%	12	Multiplication of unit fractions
120	34.9%	48	Subtracting real numbers
115	33.4%	45	Finding the median of a set of numbers
112	32.6%	5	Simplifying 0 divided by a number
110	32%	23	Rounding decimals
110	32%	26	Changing a fraction to a repeating decimal
110	32%	36	Converting ounces to cups
109	31.7%	16	Dividing mixed numbers
101	29.4%	7	Whole number order of operations
100	29.1%	35	Converting feet to yards
98	28.5%	31	Converting a fraction to a percent
97	28.2%	41	Find the circumference of a circle
96	27.9%	25	Convert a fraction to a terminating decimal
90	26.2%	46	Find the mode of a set of numbers
88	25.6%	40	Find the area of a square
88	25.6%	49	Multiplication of integers
85	24.7%	19	Adding mixed numbers
75	21.8%	18	Order of operations with fractions

69	20.1%	44	Find the mean of a set of numbers
66	19.2%	4	Solving a whole number word problem
64	18.6%	1	Subtracting whole numbers
64	18.6%	28	Solving a proportion word problem
64	18.6%	47	Addition of integers
59	17.2%	13	Multiplying fractions
52	15.1%	24	Subtracting unaligned decimals
52	15.1%	29	Converting a percent to a decimal
49	14.2%	11	Simplifying a fraction
45	13.1%	27	Solving a proportion
41	11.9%	30	Converting a decimal to a percent
41	11.9%	43	Finding the volume of a rectangular solid
37	10.8%	8	Solving a whole number word problem
*25/246	10.2%	6	Solving a whole number word problem
34	9.9%	14	Division of fractions (mixed # by a whole #)
33	9.6%	2	Place value
23	6.7%	3	Multiplying whole numbers
18	5.2%	10	Change a mixed number to an improper fraction

*** There were typographical errors on Form D1 of the Mat-010 and 010B final exam on questions #6 and #9. Therefore, the percent of students who answered incorrectly was computed out of 246 instead of 344. (98 students had taken Form D1 of the final exam).**