

GES3: Solve Problems using Quantitative Reasoning

MATH 0901 Introductory Algebra

Semester: FALL 2013

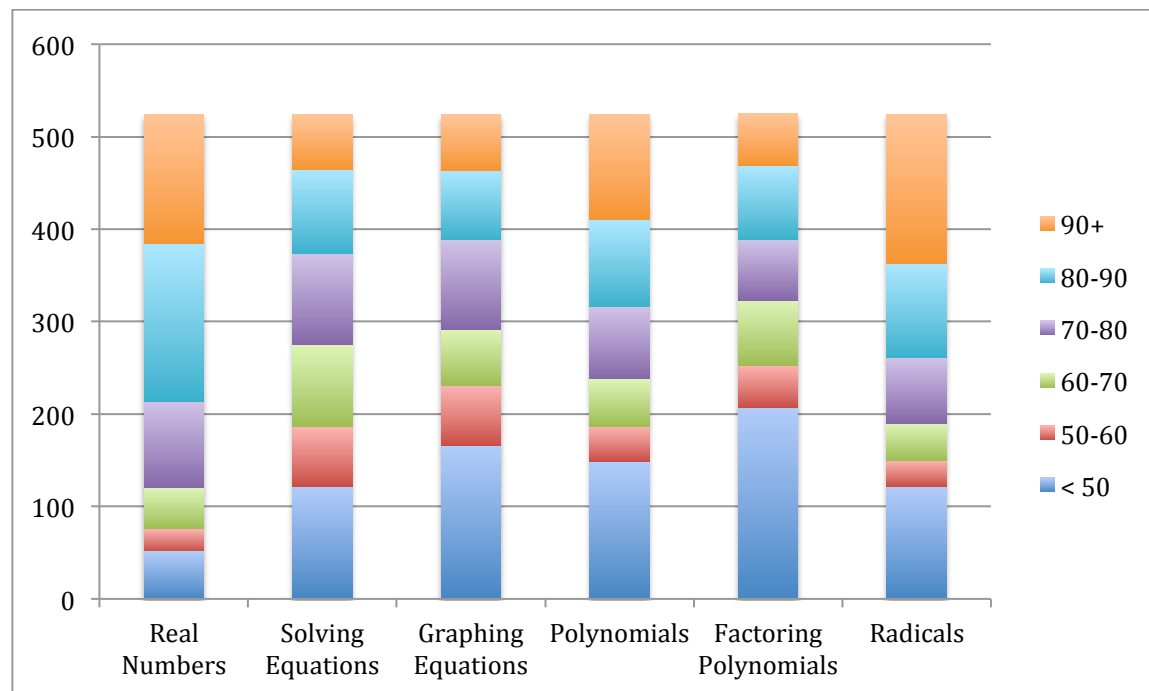
REPORT DATE: 2/11/2014

Student subject mastery is assessed through Chapter tests. Each Chapter covers one content area and the students are assessed on their mastery of each topic. The scores were grouped into categories by test score.

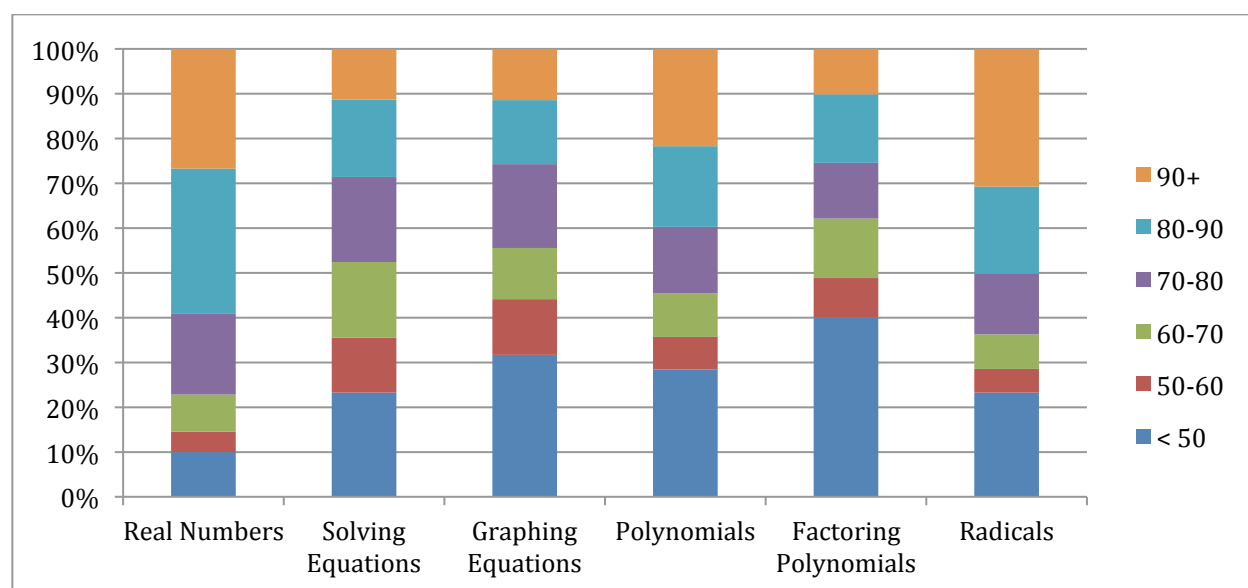
Number of students: 524

Number of sections: 12

Score	Real Numbers	Solving Equations	Graphing Equations	Polynomials	Factoring Polynomials	Radicals
< 50	52	122	166	149	210	122
50-60	24	64	65	38	46	28
60-70	44	89	60	51	70	40
70-80	94	99	98	78	65	71
80-90	170	91	75	94	80	102
90+	140	59	60	114	53	161
Total	524	524	524	524	524	524



Score	Real Numbers	Solving Equations	Graphing Equations	Polynomials	Factoring Polynomials	Radicals
< 50	10%	23%	32%	28%	40%	23%
50-60	5%	12%	12%	7%	9%	5%
60-70	8%	17%	11%	10%	13%	8%
70-80	18%	19%	19%	15%	12%	14%
80-90	32%	17%	14%	18%	15%	19%
90+	27%	11%	11%	22%	10%	31%
Total	100%	100%	100%	100%	100%	100%
Above 70	77%	48%	44%	55%	38%	64%



Discussion/Action/Closing the Loop:

This was the first semester using the Emporium model for this course. The Emporium model allows students to work independently with the teacher and graduate assistants as facilitators. Students can progress through the course at their own pace. The course enrolled 50 students per section and we discovered that class size was an issue. We were not able to give the students the necessary support within the class time, so we reduced the number of students to 35 students per section. The students are expected to complete this course with a grade of 65 or better, as this is a Pass/Fail course. We had a 73% pass rate.

Students showed the most difficulty in two Chapters: Graphing Linear Equations (32% scored below 50) and Factoring Polynomials (38% scored below 50). The faculty will be implementing several new techniques to improve the mastery of these topics. Students will be required to keep a notebook, which they will setup as a reference guide. They will be required to create sections for each chapter with all the formulas, properties and processes written out. They are to create reference guides for each topic

that is covered, with an emphasis on Graphing Linear Equations and Factoring Polynomials. Each professor throughout the semester will review the notebooks. More instruction will be given in the classroom on the topics that have proven to be more difficult for the students to master, instead of just working independently with the software. The faculty has also instituted at least one mandatory tutoring session prior to each test. This will allow the students to work in a small group environment with a knowledgeable tutor to work through any difficulties they are having with the material in each chapter. There will no longer be an individual test for Radicals, the topic will be tested on the cumulative final instead. This will allow for more time to be spent on Graphing Equations and Factoring Polynomials which have proven to be the most difficult concepts for students to master.