

Learning Goal: Foundational Knowledge - Algebra

Date: Fall 2011

What was assessed: 642 student work products from MAT 111 (all students taking the final exam)

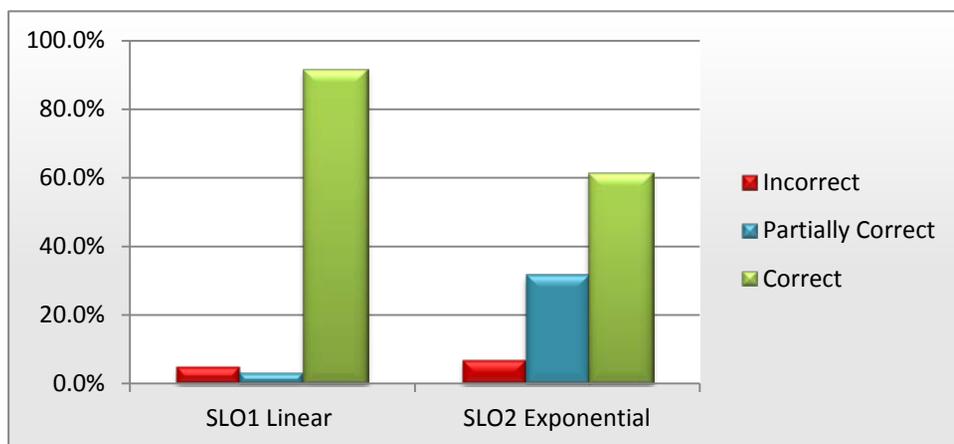
How it was assessed: MAT 111 instructors rubric, scored by course instructors

Results:

Score Results

	Incorrect	Partially Correct	Correct
SLO1 Solving Linear Equations	32 (5.0%)	21 (3.3%)	598 (91.7%)
SLO2 Solving Exponential Equations requiring Logarithms	44 (6.9%)	204 (31.8%)	394 (61.4%)

Distribution of Scores for Equations



Findings:

- A greater percentage of students taking the traditionally-sized classroom-based course (52.8% of all students) correctly solved the linear equation 95% vs. 88%, sig. = .000).
- A greater percentage of students taking the large-lecture, technology-enhanced course (47.2% of all students) correctly solved the exponential equation (68% vs. 56%, sig. = .023).
- The distribution of scores was statistically significantly different for males and females for exponential equations, with females answering correctly more often (64.6% vs. 56.8%, sig. = .028).
- There was statistically significant, though small, negative correlation between total hours completed and scores on the exponential equation (Spearman's rho = -.087, sig. = .027).
- Comparing scores on the two questions, 62.0% of students who correctly solved the linear equation also correctly solved the exponential equation, similar to the 61.4% of all students who correctly solved the exponential equation.

Discussion:

Students performed well on the linear equation, with only 5% of students' work completely incorrect. Even on the exponential equation, only 6.9% of students' work was completely incorrect. It is interesting that there were significant differences in the distribution of scores across the two delivery modes, with each group outperforming the other on one of the equations.

Recommendations:

Compare these results to placement test results.