

Basic Algebra in School District RE- 1 has been expanded in concepts and skills, and separated into 2 courses. The first, Algebra 1, focuses on linear equations and functions. The second, Intermediate Algebra, focuses on quadratic equations and functions. Because the course has been divided, the skills learned in Algebra 1 are used extensively in Intermediate Algebra. To ensure a student's success, the student must pass Algebra 1 with a grade of C or higher, and pass a district Proficiency Test with a 70% or higher.

The Proficiency Test is made up of 40 questions based on basic skills needed to have success in Intermediate Algebra. The test was written by the district middle school and high school mathematics teachers. All middle school and high school mathematics teachers in the district had input and consensus was reached on the number of questions and the type to be included. The test is given in January for the fall semester and in May for the spring semester. The entire district gives the test on the same day and is scored that evening by the math teachers. Each question is worth 3 points. The test is worth 120 points, and the student must earn 84 points or higher to show proficiency.

The skills needed are as follows:

Advancement Test Skills for Algebra 1-A

- _____ 1. Skill: Order of operations
- _____ 2. Skill: Evaluate variable expression
- _____ 3. Skill: Translate sentence into equation
- _____ 4. Skill: Simplify phrase containing absolute value
- _____ 5. Skill: Absolute value
- _____ 6. Skill: Simplify signed numbers
- _____ 7. Skill: Combine like terms
- _____ 8. Skill: Distributive property
- _____ 9. Skill: Simplify variable fractions
- _____ 10. Skill: Find the line of best fit for a scatter plot.
- _____ 11. Skill: Solve 2-step equation
- _____ 12. Skill: Solve equation with variable in both members
- _____ 13. Skill: Solve equation containing fractions
- _____ 14. Skill: Solve equation containing subtraction of binomial
- _____ 15. Skill: Translate into an equation, make a labeled sketch, and solve perimeter problem
- _____ 16. Skill: Recognize basic algebraic properties
- _____ 17. Skill: Solve algebraic equation
- _____ 18. Skill: Subtract polynomials (must be within the context of I-A skills)
- _____ 19. Skill: Distinguish between a function and a relation.
- _____ 20. Skill: Multiply variable terms
- _____ 21. Skill: Find a solution to a linear equation
- _____ 22. Skill: Find slope and y-intercept of a linear equation

- _____ 23. Skill: Find the slope of a line when given two points
- _____ 24. Skill: Find the range when given the domain of a function
- _____ 25. Skill: Write a linear equation, given two points
- _____ 26. Skill: Write a linear equation given the slope and y-intercept
- _____ 27. Skill: Solve direct variation
- _____ 28. Skill: Find parallel line
- _____ 29. Skill: Graph a linear equation by using the x- and y-intercepts
- _____ 30. Skill: Graph linear equation in standard form
- _____ 31. Skill: Graph linear equation in slope intercept form
- _____ 32. Skill: Changing form of linear equations
- _____ 33. Skill: Graph a line from equation with one variable
- _____ 34. Skill: Find probability
- _____ 35. Skill: Find odds
- _____ 36. Skill: Use formula to solve word problem
- _____ 37. Skill: Solve and graph linear inequalities
- _____ 38. Skill: Find Unit range/rate of change
- _____ 39. Skill: Round a number to a given unit
- _____ 40. Skill: Find perpendicular line