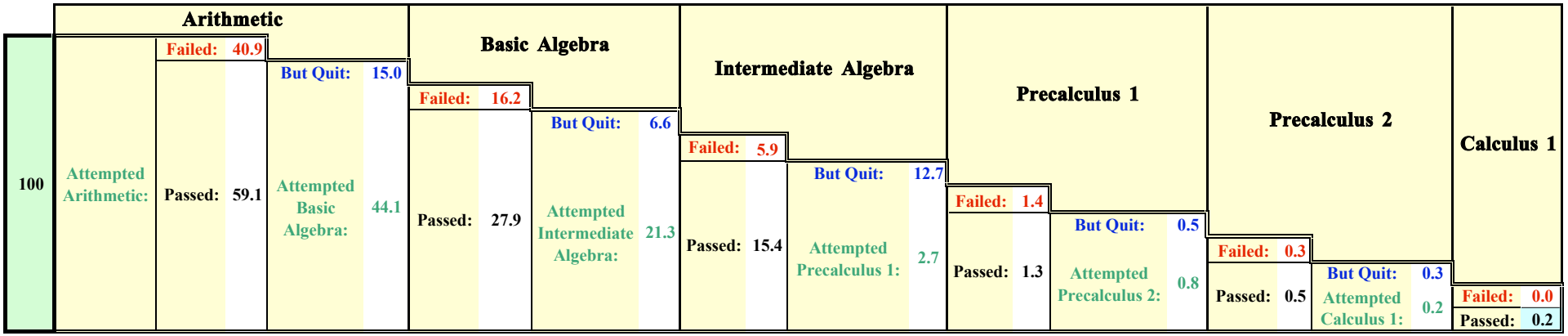
Table 1. Longitudinal study of **1732 students** entering the sequence
Arithmetic - Basic Algebra - Intermediate Algebra – Precalculus 1 - Precalculus 2 – Calculus 1
from Fall 1999 to Spring 2001

The following **percentages** come from a report released by the **Office for Institutional Research**.



Arithmetic Integers, fractions, decimals, scientific notation, ratio and proportion, percents, geometry and measurement, applications, approximations, use of a scientific calculator

Basic Algebra First course in algebra. Integer and rational arithmetic; algebraic expressions; linear equations and inequalities in one variable; rectangular coordinates; linear equations in two variables and their graphs; polynomials; factoring; quadratic equations

Intermediate Algebra Course for students with some proficiency in algebraic techniques who need further preparation for higher level courses such as precalculus. Emphasis on problem solving and applications. Properties of real numbers, algebraic expressions such as polynomials, fractions, radicals and

Precalculus 1 Functions and their applications to algebra, real numbers, distance and locus problems in the plane, polynomial functions, graphs of functions, inverse functions, rational functions, their zeros and poles

Precalculus 2 Exponential and logarithmic functions, sine and cosine functions and additional trigonometric functions, identities, inverse trigonometric functions, polar coordinates, vectors in the plane, dot product, the complex plane, complex numbers, parametric representations, translation and rotation of axes.

Calculus 1 Functions, graphs, limits, continuity, derivatives and antiderivatives of algebraic and transcendental functions; techniques of differentiation; applications of derivatives, polynomial approximation; L'Hopital's rule; applied maximum and minimum problems; the definite integral, the fundamental theorem of calculus, the substitution rule.