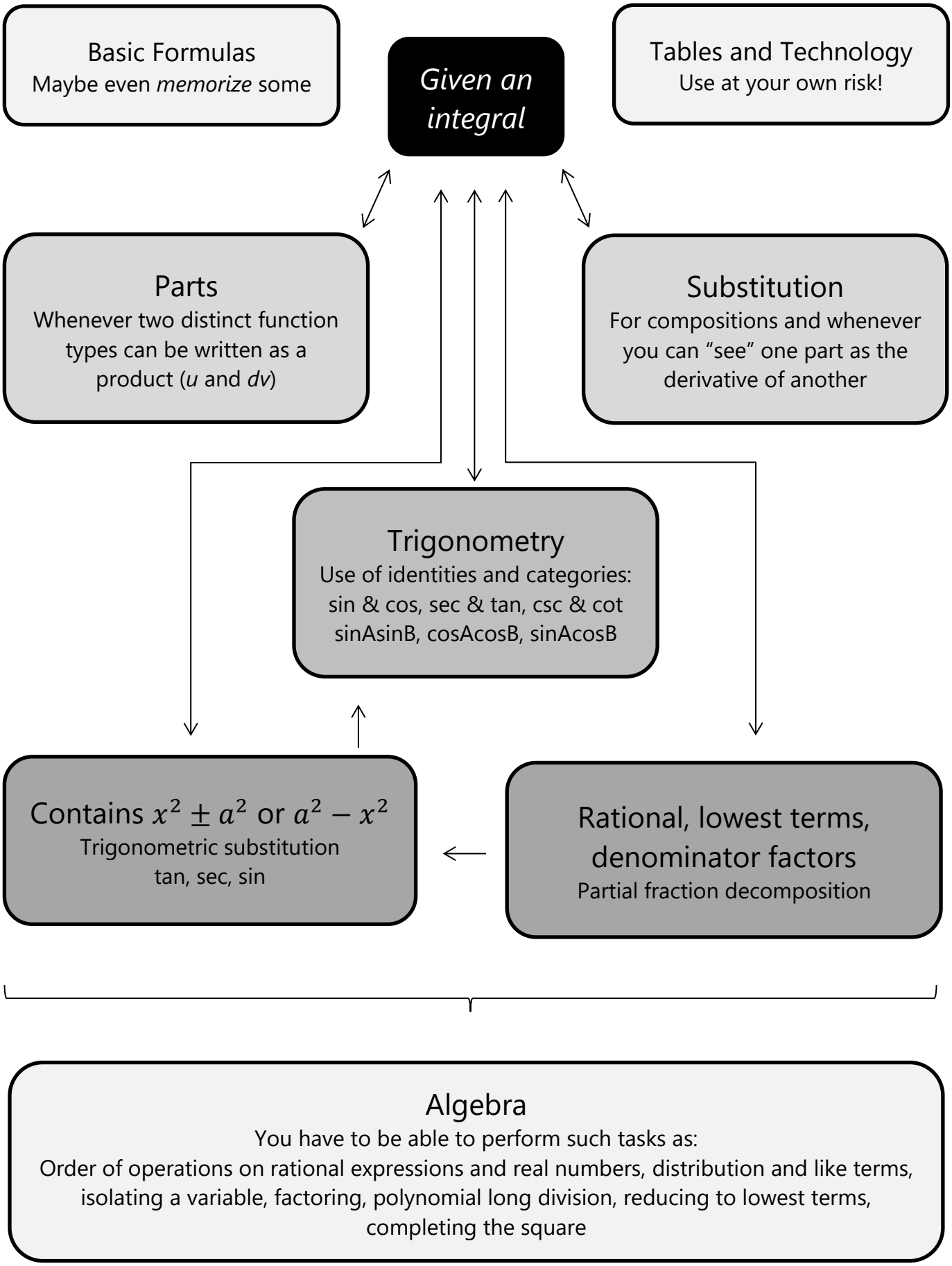
Basic Formulas
Maybe even *memorize* some
Given an integral
Tables and Technology
Use at your own risk!
Parts
Whenever two distinct function types can be written as a product (*u* and *dv*)
Substitution
For compositions and whenever you can "see" one part as the derivative of another
Trigonometry
Use of identities and categories:
sin & cos, sec & tan, csc & cot
sinAsinB, cosAcosB, sinAcosB
Contains $x^2 \pm a^2$ or $a^2 - x^2$
Trigonometric substitution
tan, sec, sin
Rational, lowest terms, denominator factors
Partial fraction decomposition
Algebra
You have to be able to perform such tasks as:
Order of operations on rational expressions and real numbers, distribution and like terms, isolating a variable, factoring, polynomial long division, reducing to lowest terms, completing the square