AccuracyGoal

AccuracyGoal is an option for various numerical operations which specifies how many digits of accuracy should be sought in the final result.

AccuracyGoal is an option for such functions as NIntegrate and FindRoot. Even though you may specify AccuracyGoal -> n, the results you get may have much less than n digit accuracy. In most cases, you must set WorkingPrecision to be at least as large as AccuracyGoal. See page 472. See also WorkingPrecision.