

Rubi 3 Indefinite Integration Test Result Summary

Integration function: Rubi 3's user-defined Int function

Time and date of test: 23:13 05 June 2010

Mathematica version: 7.0 for Microsoft Windows (64-bit) (February 18, 2009)

Integration rules defined: 2207

Integration rules applied: 93437

Maximum steps used: 58 steps Optimal steps: 58 steps Integrand: $(1 - a^2 x^2)^3 \text{ArcTanh}[a x]^3$

Largest result size: 1934 leaves Optimal size: 1934 leaves Integrand: $\frac{1}{x^4 (a + b x^2 + c x^4)^3}$

Longest compute time: 2.324 seconds Result size: 257 leaves Integrand: $\frac{\text{Log}[a + b x + c x^2]}{(d + e x)^3}$

File	Optimal	Nonidentical	Nonintegrable	Timeouts	Incorrect	Total	Integrals/sec
RationalFunctionsOfLinears	347	0	0	0	0	347	24.2
RationalFunctionsOfBinomials	618	0	0	0	0	618	33.5
RationalFunctionsOfTrinomials	779	0	1	0	0	780	39.
AlgebraicFunctionsOfLinears	629	3	0	0	0	632	50.9
AlgebraicFunctionsOfBinomials	722	3	3	0	0	728	76.4
AlgebraicFunctionsOfTrinomials	539	1	6	0	0	546	34.8
ExponentialFunctions	588	0	4	0	0	592	21.2
LogarithmFunctions	679	1	2	0	0	682	29.7
SineFunctions	356	0	0	0	0	356	18.
CosineFunctions	343	0	0	0	0	343	18.6
TangentFunctions	124	0	0	0	0	124	34.3
CotangentFunctions	120	0	0	0	0	120	33.1
SecantFunctions	121	1	0	0	0	122	20.5
CosecantFunctions	119	0	0	0	0	119	22.2
TwoTrigFunctions	995	2	2	0	0	999	20.2
TrigFunctions	398	1	3	0	0	402	24.9
$\sin(x)^m (a + a \sin(x))^n$	73	0	0	0	0	73	130.
$\sin(x)^m (a + b \sin(x))^n$	67	0	0	0	0	67	25.6
$\cos(x)^m (b \cos(x))^n$	427	0	0	0	0	427	84.8
$\cos(x)^m (a + a \cos(x))^n$	1542	0	0	0	0	1542	38.6
$\cos(x)^m (a + b \cos(x))^n$	1439	0	0	0	0	1439	13.7

$\sec(x)^m (b \sec(x))^n$	139	0	0	0	0	139	127.
$\sec(x)^m (a+a \sec(x))^n$	1467	0	0	0	0	1467	29.4
$\sec(x)^m (a+b \sec(x))^n$	1093	0	0	0	0	1093	11.2
$\csc(x)^m (a+a \csc(x))^n$	23	0	0	0	0	23	77.7
$\csc(x)^m (a+b \csc(x))^n$	16	0	0	0	0	16	46.8
HyperbolicSineFunctions	321	0	0	0	0	321	22.9
HyperbolicCosineFunctions	332	0	0	0	0	332	23.4
HyperbolicTangentFunctions	89	0	0	0	0	89	36.6
HyperbolicCotangentFunctions	89	0	0	0	0	89	35.
HyperbolicSecantFunctions	120	0	0	0	0	120	37.8
HyperbolicCosecantFunctions	119	0	0	0	0	119	38.5
TwoHyperbolicFunctions	1116	2	2	0	0	1120	16.6
HyperbolicFunctions	238	2	1	0	0	241	15.6
InverseSineFunctions	196	0	1	0	0	197	15.8
InverseCosineFunctions	76	0	1	0	0	77	56.1
InverseTangentFunctions	124	0	1	0	0	125	30.8
InverseCotangentFunctions	100	1	0	0	0	101	14.6
InverseSecantFunctions	28	0	0	0	0	28	21.9
InverseCosecantFunctions	31	0	0	0	0	31	22.3
InverseHyperbolicSineFunctions	52	0	0	0	0	52	65.2
InverseHyperbolicCosineFunctions	52	0	1	0	0	53	52.2
InverseHyperbolicTangentFunctions	490	0	1	0	0	491	23.2
InverseHyperbolicCotangentFunctions	189	0	1	0	0	190	20.1
InverseHyperbolicSecantFunctions	30	0	0	0	0	30	14.1
InverseHyperbolicCosecantFunctions	35	0	0	0	0	35	44.
ErrorFunctions	114	0	0	0	0	114	29.
FresnelIntegralFunctions	126	0	0	0	0	126	25.8
ExponentialIntegralFunctions	42	0	0	0	0	42	16.
TrigIntegralFunctions	103	0	0	0	0	103	8.61
HyperbolicIntegralFunctions	102	0	0	0	0	102	9.03
LogarithmIntegralFunctions	3	0	0	0	0	3	27.8
GammaFunctions	21	0	0	0	0	21	70.9
ZetaFunctions	14	0	0	0	0	14	42.7
PolylogarithmFunctions	18	0	0	0	0	18	50.1
ProductLogarithmFunctions	396	0	0	0	0	396	34.5
ContributedProblems	173	5	2	0	0	180	20.
TOTALS	18702	22	32	0	0	18756	23.2
PERCENTAGES	99.7%	0.117%	0.171%	0.%	0.%	100.%	