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→ compile_file("c:/Users/prodanov/Dropbox/maxima/intde1.lisp");
(%o1) [c:/Users/prodanov/Dropbox/maxima/intde1.lisp, #P"c:/Users/prodanov/Dropbox/maxima/intde1.lisp"]

→ :lisp (atan 1.0d0 1)
0.7853981633974483

→ atan(1),numer;
(%o2) 0.7853981633974483

→ :lisp(defun f (x) (/ 1 (sqrt x)));
F

→ load("c:/Users/prodanov/Dropbox/maxima/intde1.lisp");
(%o3) c:/Users/prodanov/Dropbox/maxima/intde1.lisp

→ :lisp(defun f1 (x) (/ 1 (* x x)));
F1

→ :lisp(quadde::intde #'f 0.0d0 1.0d0 1.0d-15 0.0d0);
1.9999999999999993
3.999999999999999e-15

→ :lisp(quadde::intdei #'f1 1.0d0 1.0d-15 0.0d0);
0.9999999999999997
2.000000000000000286e-15

→ compile_file("c:/Users/prodanov/Dropbox/maxima/quadde.lisp");
(%o4) [c:/Users/prodanov/Dropbox/maxima/quadde.lisp, #P"c:/Users/prodanov/Dropbox/maxima/quadde.lisp"]

→ load("c:/Users/prodanov/Dropbox/maxima/quadde.lisp");
(%o6) c:/Users/prodanov/Dropbox/maxima/quadde.lisp

→ quad_intde(1/sqrt(x),x,0,1, 'epsrel=1e-15);
(%o8) [1.999999999999999, 3.999999999999999 10-15]

→ (quad_intde(1/sqrt(x),x^2,0,1, 'epsrel=1e-15));
Variable of integration: x2 not an atom
-- an error. To debug this try: debugmode(true);

→ quad_intde(1/sqrt(x),z,0,1, 'epsrel=1e-15);
Variable z not in  $\frac{1}{\sqrt{x}}$ 
-- an error. To debug this try: debugmode(true);

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→ quad_intde(1/sqrt(x),x[k],0,1, 'epsrel=1e-15);
Improper variable of integration:  $x_k$ 
-- an error. To debug this try: debugmode(true);

→ quad_intde(1/sqrt(x),1,0,1, 'epsrel=1e-15);
Variable of integration not a variable: 1
-- an error. To debug this try: debugmode(true);

→ quad_intde(sin(x),x,x,%pi, 'epsrel=1e-15);
Terminal contains variable of integration: x
-- an error. To debug this try: debugmode(true);

→ quad_intde(sin(x),x,0,'Q, 'epsrel=1e-15);
Terminal not a number 0 , Q
-- an error. To debug this try: debugmode(true);

→ integrate(sin(x),x,0, %pi);
(%o17) 2

→ fe(expr,v):= (freeof( expr, var));
(%o18) fe( expr , v ):=freeof( expr , var )

→ quad_intdei(exp(-x)/sqrt(x),x,0, 'epsrel=1e-15);
(%o24) [1.772453850905516, 7.089857411626387 10-15]

→ gamma(1/2),numer;
(%o12) 1.772453850905516

→ quad_intdeo(2*sin(x)/x,x,0, 1, 'epsrel=1e-15);
(%o10) [3.141592653589794, 1.327780749559718 10-14]

→ integrate(2*sin(x)/x,x,0, inf);
(%o11)  $\pi$ 

→ quad_intdeo(bessel_j(0,x)/(x^2+1)*x,x,0, 1, 'epsrel=1e-15);
(%o27) [0.4210244382407084, 2.23303344580517 10-15]

→ bessel_k(0,1),numer;
(%o16) 0.4210244382407085

→

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