

[Help](#)

```
#ifndef _RK45_H
#define _RK45_H

double r4_abs ( double x );
double r4_epsilon ( void );
void r4_fehl ( void f ( double t, double y[], double yp[],
    void* pt ), void* pt, int neqn,
    double y[], double t, double h, double yp[], double f1[],
    double f2[], double f3[],
    double f4[], double f5[], double s[] );
double r4_max ( double x, double y );
double r4_min ( double x, double y );
int r4_rkf45 ( void f ( double t, double y[], double yp[],
    void* pt ), void* pt, int neqn,
    double y[], double yp[], double *t, double tout, double *
    relerr, double abserr,
    int flag );
double r4_sign ( double x );

double r8_abs ( double x );
double r8_epsilon ( void );
void r8_fehl ( void f ( double t, double y[], double yp[],
    void* pt ), void* pt, int neqn,
    double y[], double t, double h, double yp[], double f1[],
    double f2[], double f3[],
    double f4[], double f5[], double s[] );
double r8_max ( double x, double y );
double r8_min ( double x, double y );
int r8_rkf45 ( void f ( double t, double y[], double yp[],
    void* pt ), void* pt, int neqn,
    double y[], double yp[], double *t, double tout, double *
    relerr, double abserr,
    int flag );
double r8_sign ( double x );

void timestamp ( void );

#endif /* _RK45_H */
```

References