casin   The casin function computes the complex arc sine, with branch cuts outside the interval [-1, +1] along the real axis. The return value lies in a strip mathematically unbounded along the imaginary axis and in the interval $[-\pi/2, +\pi/2]$ along the real axis.

catan   The catan function computes the complex arc tangent, with branch cuts outside the interval $[-i, +i]$ along the imaginary axis. The return value lies in a strip mathematically unbounded along the imaginary axis and in the interval $[-\pi/2, +\pi/2]$ along the real axis.

ccos   The ccos function computes the complex cosine, the csin function com-
csin   putes the complex sine, and the ctan function computes the complex tangent.
ctan

Hyperbolic Functions

```
double complex cacosh(double complex z);
float complex cacoshf(float complex z);
long double complex cacoshl(long double complex z);

double complex casinh(double complex z);
float complex casinhf(float complex z);
long double complex casinhl(long double complex z);

double complex catanh(double complex z);
float complex catanhf(float complex z);
long double complex catanhl(long double complex z);

double complex ccosh(double complex z);
float complex ccoshf(float complex z);
long double complex ccoshl(long double complex z);

double complex csinh(double complex z);
float complex csinhf(float complex z);
long double complex csinhl(long double complex z);

double complex ctanh(double complex z);
float complex ctanhf(float complex z);
long double complex ctanhl(long double complex z);
```

cacosh   The cacosh function computes the complex arc hyperbolic cosine, with a branch cut at values less than 1 along the real axis. The return value lies in a half-strip of nonnegative values along the real axis and in the interval $[-i\pi, +i\pi]$ along the imaginary axis.

casinh   The casinh function computes the complex arc hyperbolic sine, with branch cuts outside the interval $[-i, +i]$ along the imaginary axis. The return value lies in a strip mathematically unbounded along the real axis and in the interval $[-i\pi/2, +i\pi/2]$ along the imaginary axis.

catanh   The catanh function computes the complex arc hyperbolic tangent, with branch cuts outside the interval [-1, +1] along the real axis. The return value lies in