Table 27.3
Format-Specifier Macros in <inttypes.h>

...printf *Macros for Signed Integers*				
PRId*N*	PRIdLEAST*N*	PRIdFAST*N*	PRIdMAX	PRIdPTR
PRIi*N*	PRIiLEAST*N*	PRIiFAST*N*	PRIiMAX	PRIiPTR
...printf *Macros for Unsigned Integers*				
PRIo*N*	PRIoLEAST*N*	PRIoFAST*N*	PRIoMAX	PRIoPTR
PRIu*N*	PRIuLEAST*N*	PRIuFAST*N*	PRIuMAX	PRIuPTR
PRIx*N*	PRIxLEAST*N*	PRIxFAST*N*	PRIxMAX	PRIxPTR
PRIX*N*	PRIXLEAST*N*	PRIXFAST*N*	PRIXMAX	PRIXPTR
...scanf *Macros for Signed Integers*				
SCNd*N*	SCNdLEAST*N*	SCNdFAST*N*	SCNdMAX	SCNdPTR
SCNi*N*	SCNiLEAST*N*	SCNiFAST*N*	SCNiMAX	SCNiPTR
...scanf *Macros for Unsigned Integers*				
SCNo*N*	SCNoLEAST*N*	SCNoFAST*N*	SCNoMAX	SCNoPTR
SCNu*N*	SCNuLEAST*N*	SCNuFAST*N*	SCNuMAX	SCNuPTR
SCNx*N*	SCNxLEAST*N*	SCNxFAST*N*	SCNxMAX	SCNxPTR

Functions for Greatest-Width Integer Types

```
intmax_t imaxabs(intmax_t j);
imaxdiv_t imaxdiv(intmax_t numer, intmax_t denom);
intmax_t strtoimax(const char * restrict nptr,
                   char ** restrict endptr,
                   int base);
uintmax_t strtoumax(const char * restrict nptr,
                    char ** restrict endptr,
                    int base);
intmax_t wcstoimax(const wchar_t * restrict nptr,
                   wchar_t ** restrict endptr,
                   int base);
uintmax_t wcstoumax(const wchar_t * restrict nptr,
                    wchar_t ** restrict endptr,
                    int base);
```

In addition to defining macros, the <inttypes.h> header provides functions for working with greatest-width integers, which were introduced in Section 27.1. A greatest-width integer has type intmax_t (the widest signed integer type supported by an implementation) or uintmax_t (the widest unsigned integer type). These types might be the same width as the long long int type, but they could be wider. For example, long long int might be 64 bits wide and intmax_t and uintmax_t might be 128 bits wide.

imaxabs
imaxdiv

The imaxabs and imaxdiv functions are greatest-width versions of the integer arithmetic functions declared in <stdlib.h>. The imaxabs function returns the absolute value of its argument. Both the argument and the return value have type intmax_t. The imaxdiv function divides its first argument by its

<stdlib.h> header ➤26.2