fmod — *Floating Modulus* — <math.h>

```
double fmod(double x, double y);
float fmodf(float x, float y);
long double fmodl(long double x, long double y);
```

Returns Remainder when x is divided by y. If y is zero, either a domain error occurs or zero is returned. *23.3*

fopen — *Open File* — <stdio.h>

```
FILE *fopen(const char * restrict filename,
            const char * restrict mode);
```

Opens the file whose name is pointed to by `filename` and associates it with a stream. mode specifies the mode in which the file is to be opened. Clears the error and end-of-file indicators for the stream.

Returns A file pointer to be used when performing subsequent operations on the file. Returns a null pointer if the file can't be opened. *22.2*

fpclassify — *Floating-Point Classification (C99)* — <math.h>

```
int fpclassify(real-floating x);
```

macro

Returns Either FP_INFINITE, FP_NAN, FP_NORMAL, FP_SUBNORMAL, or FP_ZERO, depending on whether x is infinity, not a number, normal, subnormal, or zero, respectively. *23.4*

fprintf — *Formatted File Write* — <stdio.h>

```
int fprintf(FILE * restrict stream,
            const char * restrict format, ...);
```

Writes output to the stream pointed to by `stream`. The string pointed to by `format` specifies how subsequent arguments will be displayed.

Returns Number of characters written. Returns a negative value if an error occurs. *22.3*

fputc — *Write Character to File* — <stdio.h>

```
int fputc(int c, FILE *stream);
```

Writes the character c to the stream pointed to by `stream`.

Returns c (the character written). If a write error occurs, `fputc` sets the stream's error indicator and returns EOF. *22.4*

fputs — *Write String to File* — <stdio.h>

```
int fputs(const char * restrict s,
          FILE * restrict stream);
```

Writes the string pointed to by s to the stream pointed to by `stream`.

Returns A nonnegative value if successful. Returns EOF if a write error occurs. *22.5*