Basic Data Types

C supports a very small number of data types, each with a unique combination of size and interpretation. Basic data types are shown in the figure below. Note that while the sizes shown are typical and what we will use in general discussion in this book, they are not guaranteed. In particular, sizes depend on the hardware and the *compiler*—the program that turns your code into instructions the computer can actually execute (more on this later).

type	size (typical)	interpretation	example
char	1 byte (8 bits)	one ASCII character	'f'
int	4 bytes (32 bits)	binary integer	42
float	4 bytes (32 bits)	floating point number	3.141592
double	8 bytes (64 bits)	floating point number	3.141592653589793