

- W 3. Which of the following are not legal types in C?
- (a) `short unsigned int`
 - (b) `short float`
 - (c) `long double`
 - (d) `unsigned long`

Section 7.3

- W 4. If `c` is a variable of type `char`, which one of the following statements is illegal?
- (a) `i += c; /* i has type int */`
 - (b) `c = 2 * c - 1;`
 - (c) `putchar(c);`
 - (d) `printf(c);`
5. Which one of the following is not a legal way to write the number 65? (Assume that the character set is ASCII.)
- (a) `'A'`
 - (b) `0b1000001`
 - (c) `0101`
 - (d) `0x41`
6. For each of the following items of data, specify which one of the types `char`, `short`, `int`, or `long` is the smallest one guaranteed to be large enough to store the item.
- (a) Days in a month
 - (b) Days in a year
 - (c) Minutes in a day
 - (d) Seconds in a day
7. For each of the following character escapes, give the equivalent octal escape. (Assume that the character set is ASCII.) You may wish to consult Appendix E, which lists the numerical codes for ASCII characters.
- (a) `\b`
 - (b) `\n`
 - (c) `\r`
 - (d) `\t`
8. Repeat Exercise 7, but give the equivalent hexadecimal escape.

Section 7.4

9. Suppose that `i` and `j` are variables of type `int`. What is the type of the expression `i / j + 'a'`?
- W 10. Suppose that `i` is a variable of type `int`, `j` is a variable of type `long`, and `k` is a variable of type `unsigned int`. What is the type of the expression `i + (int) j * k`?
11. Suppose that `i` is a variable of type `int`, `f` is a variable of type `float`, and `d` is a variable of type `double`. What is the type of the expression `i * f / d`?
- W 12. Suppose that `i` is a variable of type `int`, `f` is a variable of type `float`, and `d` is a variable of type `double`. Explain what conversions take place during the execution of the following statement:
- ```
d = i + f;
```