❖ C Programming:

Practice due Apr 9, 2023 05:19 PDT Completed

Comments

1/1 point (graded)

Which statement(s) accurately describes the syntax for comments in C.

- [x] // indicates a comment continuing until the end of the line
- [ ] % indicates a comment continuing until the end of the line
- [ ] # indicates a comment continuing until the end of the line
- [ ] /* indicates a comment continuing until the end of the line
- [x] /* indicates a comment continuing until the next */

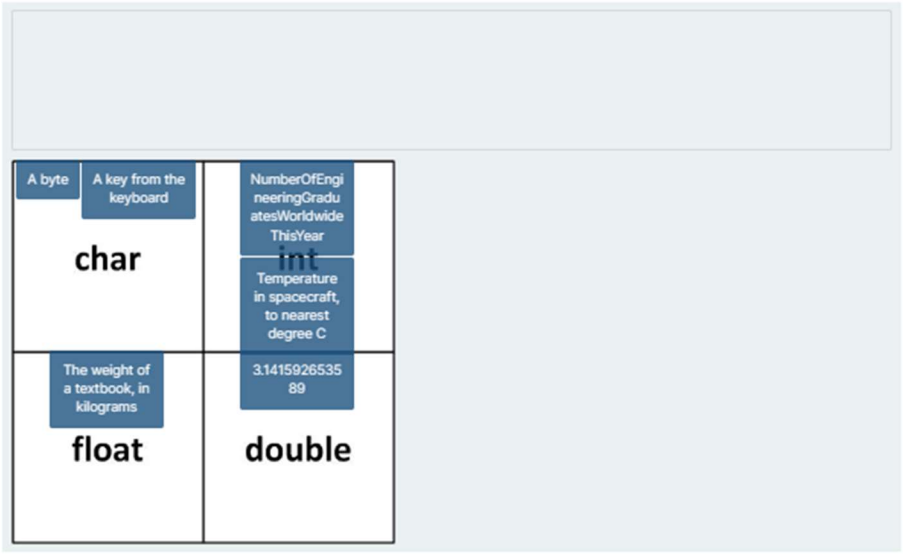
Submit Try again (1 attempt remaining) Show answer

Data Types

1/1 point (graded)

Keyboard Help

Drag the variable description to the appropriate C datatype.



Reset

ASCII values

1/1 point (graded)

What is the ASCII value for the letter 'C'? Remember that 'A' is 65.

67

67

Submit Try again (1 attempt remaining) Show answer

Practice due Apr 9, 2023 05:19 PDT Completed

Function Prototypes

1/1 point (graded)

When is a function prototype required in C?

- for all functions
- when the function is called before it is declared
- only for recursive functions

✔

Submit Try again (1 attempt remaining) Show answer

Function Declarations

1/1 point (graded)

What is the best prototype for a function that sums the integers from a to b?

- double sumInts(int a, int b);
- double sumInts(double a, double b);
- int sumInts(int a, int b);
- void sumInts(int a, int b, int sum);
- int foo(int, int);

✔

Submit Try again (1 attempt remaining) Show answer

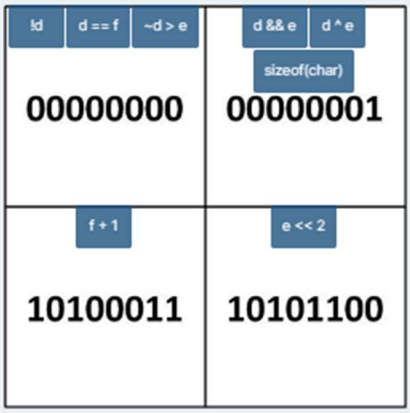
Practice due Apr 9, 2023 05:19 PDT Completed

C Expressions

1/1 point (graded)

Keyboard Help

Suppose we declare char c; char d = 42; char e = 0b00101011; char f = 0xA2; Drag the expressions to their correct answer, expressed in binary.



Reset

FEEDBACK

Good work! You can evaluate C expressions.

Practice due Apr 9, 2023 05:19 PDT Completed

Case Statement

1/1 point (graded)

If you forget the break in a switch statement, what could go wrong?

- (●) the statement will continue evaluating other cases, and might do something unintended if one of them is satisfied
- ( ) nothing: break isn't important
- ( ) there will be no default case

Submit Try again (1 attempt remaining) Show answer

Practice due Apr 9, 2023 05:19 PDT Completed

Consider the following three blocks of code involving loops:

(a) While Loop

```
statement1;
while (condition) {
  statement2;
  statement3;
}
```

(b) Do/While Loop

```
statement1;
do {
  statement2;
  statement3;
} while (condition);
```

(c) For Loop

```
for (statement1; condition; statement3) statement2;
```

Equivalent Loops

1/1 point (graded)

Which of these loops do the same thing? Select all that apply.

- [x] (a)
- [ ] (b)
- [x] (c)

✔

Submit Try again (1 attempt remaining) Show answer

Practice due Apr 9, 2023 05:19 PDT Completed

Array Elements

1/1 point (graded)

Consider an array declared as int a[2]; The elements are

- (●) a[0] and a[1]
- ( ) a[0], a[1], and a[2]
- ( ) a[1] and a[2]
- ( ) a[1], a[2], and a[3]

✔

Submit Try again (1 attempt remaining) Show answer

String Size

1/1 point (graded)

Consider a string declared as "char str[MAXLEN] = "CAT"; What is the smallest value of MAXLEN for this to work correctly?

- ( ) 2
- ( ) 3
- (●) 4

✔

Submit Try again (1 attempt remaining) Hint | Show answer

Practice due Apr 9, 2023 05:19 PDT Completed

Data Types

1/1 point (graded)

What would be the best way to store the heights of six people?

- (●) an array of six floats
- ( ) a structure containing six floats
- ( ) six floating point variables

✔

Submit Try again (1 attempt remaining) Show answer

Data Types II

1/1 point (graded)

What would be the best way to store name, height, and age of a person?

- ( ) an array of three strings
- (●) a struct containing a string, a float, and an int
- ( ) three separate variables: a string, a float, and an int

✔

Submit Try again (1 attempt remaining) Show answer

Data Types III

1/1 point (graded)

What would be the best way to store height and weight of a person?

- ( ) an array of two floats
- (●) a struct containing two floats
- ( ) two separate float variables

✔

Submit Try again (1 attempt remaining) Show answer

Practice due Apr 9, 2023 05:19 PDT Completed

Consider the following code, and suppose ints are 4 bytes long:

```
typedef struct person {
    char name[80];
    float height;
    int age;
} person;

person p1;
int s1 = sizeof(p1);
```

Structure size

1/1 point (graded)

What is s1?

88 ✔

88

Submit Try again (1 attempt remaining) Show answer

Practice due Apr 9, 2023 05:19 PDT Completed

Consider the following code

```
float f;

float e;

float *fp;

fp = &e;

*fp = 2.71828;

f = e + 1;
```

Pointers

1/1 point (graded)

After this code is run, what is the value of f?

3.71828 ✔

3.71828

Submit Try again (1 attempt remaining) Show answer

Memory Locations

1/1 point (graded)

Suppose the variables in this program are stored in memory, starting at address 0×3000. What is the value in fp?

- ○ 0×3000
- ◉ 0×3004
- ○ 0×3008
- ○ 2.71828

✔

Submit Try again (1 attempt remaining) Show answer

Consider the following code:

```
typedef struct person {
  char name[80];
  float height;
  int age;
} person;

person p1, p2;
person *pptr;

pptr = &p2;
```

Pointers to Structures

1/1 point (graded)

Check all the correct ways to set the age of person p2.

- [ ] p1.age = 18;
- [x] p2.age = 19;
- [ ] p2→age = 20;
- [ ] pptr.age = 21;
- [x] pptr→age = 22;
- [x] (*pptr).age = 23;

✔

Submit | Try again (1 attempt remaining) | Show answer

Practice due Apr 9, 2023 05:19 PDT Completed

Consider the following code:

```
typedef struct person {
  char name[MAXLEN];
  float height;
  int age;
} person;
person p[100];
float *f = &(p[5].height);
float matrix[3][6];
```

Structures in Memory

1/1 point (graded)

Suppose the array of people starts at memory location 0×4000. What is the value of f?

- ○ 0×4000
- ○ 0×4000 + 4*(MAXLEN + 8) + MAXLEN
- ○ 0×4000 + 4*(MAXLEN + 8) + MAXLEN + 4
- ◉ 0×4000 + 5*(MAXLEN + 8) + MAXLEN
- ○ 0×4000 + 5*(MAXLEN + 8) + MAXLEN + 4

✔

Submit Try again (1 attempt remaining) Show answer

Arrays in Memory

1/1 point (graded)

Suppose matrix starts at location 100 in memory. All answers are expressed in decimal, not hexadecimal, in this problem. What address contains matrix[2][1]?

152 ✔

152

Submit Try again (1 attempt remaining) Show answer

Practice due Apr 9, 2023 05:19 PDT Completed

malloc

1/1 point (graded)

What is the correct statement to allocate a string of run-time variable size LEN?

- ○ char str = malloc(LEN);
- ○ char *str = malloc(LEN);
- ◉ char *str = (char*)malloc(LEN);
- ○ char *str = (char*)malloc(LEN*sizeof(int));
- ○ int *str = (int*)malloc(LEN*sizeof(int));

✔

Submit Try again (1 attempt remaining) Show answer