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C LANGUAGE PUNCTUATION (2.0/2.0 points)

Match the punctuation with its meaning.

Help

- ;

C

Answer: C

A. Start and stop of a compound statement
- :

G

Answer: G

B. Separates elements of a list
- ,

B

Answer: B

C. End of statement
- ()

E

Answer: E

D. Start and stop of a character constant
- { }

A

Answer: A

E. Start and end of a parameter list
- []

F

Answer: F

F. Start and stop of a array index
- " "

H

Answer: H

G. Defines a label
- ' '

D

Answer: D

H. Start and stop of a string

EXPLANATION

Check

Hide Answer(s)

DATA TYPES AND RANGES (2.0/2.0 points)

Match the variable type with its minimum and maximum value.

unsigned char

Answer: F

A. 0 to 4294967295L

signed char

Answer: D

B. 0 to +65535

unsigned short

Answer: B

C. -2147483648L to 2147483647L

short

Answer: E

D. -128 to +127

unsigned long

Answer: A

E. -32768 to +32767

long

Answer: C

F. 0 to +255

EXPLANATION

char is 8 bits, short is 16 bits and long is 32 bits. 2 to the power of 8 is 256. 2 to the power of 16 is 65536. 2 to the power of 32 is 4294967296

Check

Hide Answer(s)

Help

VARIABLE TYPES AND PRECISION (2.0/2.0 points)

Match the variable type with its precision.

Data type**Range**

char

Answer: B

A. 32 bits

short

Answer: C

B. 8 bits

long

Answer: A

C. 16 bits

EXPLANATION


char is 8 bits, short is 16 bits and long is 32 bits.

Check

Hide Answer(s)

Are the variables **side** and **area** local or global?

```
int main(void) {  
    unsigned long side; // room wall meters  
    unsigned long area; // size squared meters  
    UART_Init();        // call subroutine to initialize the uart  
    side = 3;  
    area = side*side;  
    printf("\nArea of the room with side of %ld m is %ld sq m\n",side,area);  
}
```

- ☒ local 
- ☐ global

EXPLANATION

Local variables are placed after an open-brace. Global variables are defined outside of functions.

Check

Hide Answer(s)

Help

FILL IN THE BLANK - C CODE/LOGIC (2.0/2.0 points)

In the following subroutine, the goal is to return true if and only if the input is a number 0x30, 0x31, 0x32, 0x33, 0x34, 0x35, 0x36, 0x37, 0x38, or 0x39.

```
long CheckInput(long input) {  
    if(( input xxx 0x30) yyy (input zzz 0x39)){  
        return 1;  
    } else{  
        return 0; // false  
    }  
}
```

- A. == E. <=
- B. >= F. <
- C. > G. &&
- D. || H. &

1) What C code do you need to place in the xxx position of the program?

B

Answer: B

2) What C code do you need to place in the yyy position of the program?

G

Answer: G

3) What C code do you need to place in the zzz position of the program?

E

Answer: E**EXPLANATION**

& is the bit-wise operator and is not correct. && is the Boolean operation and the correct way to combine two logical operations.

Check

Hide Answer(s)



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