

What header file must you include in a program using character testing functions such as isalpha and isdigit? -

```
#include <cctype>
```

What header file must you include in a program using the character conversion functions toupper and tolower? -

```
#include <cctype>
```

Assume c is a char variable. What value does c hold after each of the following statements executes?

Statement Contents of c

c = toupper('a'); _____

c = toupper('B'); _____

c = tolower('D'); _____

c = toupper('e'); _____ -

A

B

d

E

Look at the following code. What value will be stored in s after the code executes?

```
char name[10];
```

```
int s;
```

```
strcpy(name, "Jimmy");
```

```
s = strlen(name); -
```

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What header file must you include in a program using string functions such as strlen and strcpy? -

```
#include <cstring>
```

What header file must you include in a program using string/numeric conversion functions such as atoi and atof? -

```
#include <cstdlib>
```

What header file must you include in a program using string class objects? -
`#include <string>`

How do you compare string class objects? -
You can use relational expressions (< > = !=, etc.)

The ____ function returns true if the character argument is uppercase. -
`isupper`

The ____ function returns true if the character argument is a letter of the alphabet. -
`isalpha`

The ____ function returns true if the character argument is a digit. -
`isdigit`

The ____ function returns true if the character argument is a whitespace character. -
`isspace`

The ____ function returns the uppercase equivalent of its character argument. -
`toupper`

The ____ function returns the lowercase equivalent of its character argument. -
`tolower`

The ____ file must be included in a program that uses character testing functions. -
`cctype`

The ____ function returns the length of a string. -

strlen

To ____ two strings means to append one string to the other. -
concatenate

The ____ function concatenates two strings. -
strcat

The ____ function copies one string to another. -
strcpy

The ____ function searches for a string inside of another one. -
strstr

The ____ function compares two strings. -
strcmp

The ____ function copies, at most, n number of characters from one string to another. -
strncpy

The ____ function returns the value of a string converted to an integer. -
atoi

The ____ function returns the value of a string converted to a long integer. -
atol

The ____ function returns the value of a string converted to a float. -
atof

The `itoa` function converts an integer to a string. -

T/F: Character testing functions, such as `isupper`, accept strings as arguments and test each character in the string. -
False, accepts only characters

T/F: If `toupper`'s argument is already uppercase, it is return as it, with no changes. -
True

T/F: If `tolower`'s argument is already lowercase, it will be inadvertently converted to uppercase. -
False, stays the same

T/F: The `strlen` function returns the size of the array containing a string. -
False, returns length

T/F: If the starting address of a string is passed into a pointer parameter, it can be assumed that all the characters, from that address up to the byte that holds the null terminator, are part of the string. -
True

T/F: String-handling functions accept as arguments pointers to strings (array names or pointer variables), or literal strings. -
True

T/F: The `strcat` function checks to make sure the first string is large enough to hold both strings before performing the concatenation. -
False, `strncat`

T/F: The `strcpy` function will overwrite the contents of its first string argument. -

True

T/F: The strcpy function performs no bounds checking on the first argument. -

True

T/F: There is no difference between "847" and 847. -

False, one is a string and one is an int

Find the errors:

```
char str[] = "Stop";
```

```
if (isupper(str) == "STOP")
```

```
exit(0); -
```

The isupper function can only be used with characters, not strings

Find the errors:

```
char string1[] = "Billy";
```

```
char string2[] = "Bob Jones";
```

```
strcat(string1, string2); -
```

There is not enough space in string 1 to fit both strings