

1. How many operands does each of the following types of operators require?

_____ Unary

_____ Binary

_____ Ternary 1

2

3

2. How may the double variables temp, weight, and age be defined in one statement? double temp, weight, age;

3. How may the int variables months, days, and years be defined in one statement, with months initialized to 2 and years initialized to 3? int months = 2, days, years = 3;

4. Write assignment statements that perform the following operations with the variables a, b, and c.

A) Adds 2 to a and stores the result in b .

B) Multiplies b times 4 and stores the result in a .

C) Divides a by 3.14 and stores the result in b .

D) Subtracts 8 from b and stores the result in a .

E) Stores the value 27 in a.

F) Stores the character 'K' in c .

G) Stores the ASCII code for 'B' in c . A) b = a + 2;

B) a = b * 4;

C) b = a / 3.14;

D) a = b - 8;

E) a = 27;

F) c = 'K';

G) c = 'B'

5. Is the following comment written using single-line or multi-line comment symbols?

`/* This program was written by M. A. Codewriter*/` Multi-line comment

6. Is the following comment written using single-line or multi-line comment symbols?

`// This program was written by M. A. Codewriter` Single_line

7. Modify the following program so it prints two blank lines between each line of text.

```
#include <iostream>
```

```
using namespace std;
```

```
int main()
```

```
{
```

```
  cout << "Two mandolins like creatures in the";
```

```

cout << "dark";
cout << "Creating the agony of ecstasy.";
cout << " - George Barker";
return 0;
} #include <iostream>
int main()
{
    cout << "Two mandolins like creatures in the\n\n\n";
    cout << "dark\n\n\n";
    cout << "Creating the agony of ecstasy.\n\n\n";
    cout << " - George Barker\n\n\n";
    return 0;
}

```

8. What will the following programs print on the screen?

A) #include <iostream>
using namespace std;
int main()
{
 int freeze = 32, boil = 212;
 freeze = 0;
 boil = 100;
 cout << freeze << endl << boil << endl;
 return 0;
}

B) #include <iostream>
using namespace std;
int main()
{
 int x = 0, y = 2;
 x = y * 4;
 cout << x << endl << y << endl;
 return 0;
}

C) #include <iostream>
using namespace std;
int main()
{
 cout << "I am the incredible";
 cout << "computing
machine";
 cout << "
and I will
amaze

```

";
cout << "you.";
return 0;
}
D) #include <iostream>
using namespace std;
int main()
{
cout << "Be careful
";
cout << "This might/n be a trick ";
cout << "question
";
return 0;
}
E) #include <iostream>
using namespace std;
int main()
{
int a, x = 23;
a = x % 2;
cout << x << endl << a << endl;
return 0;
}      A) 0, 100

```

B) 8, 2

C) :

I am the incredible computing
machine and I will
amaze
you.

D):

Be careful
This might/n be a trick question

E) 23, 1

9. Every complete statement ends with a

- A) period
- B) # symbol
- C) semicolon
- D) ending brace C

10. Which of the following statements is correct?

- A) #include (iostream)
- B) #include {iostream}
- C) #include <iostream>
- D) #include [iostream]
- E) All of the above C) <iostream>

11. Every C++ program must have a

- A) cout statement
- B) function main
- C) #include statement
- D) All of the above B

12. Preprocessor directives begin with a

- A) #
- B) !
- C) <
- D) *
- E) None of the above#

13. The following data

72

'A'

"Hello World"

2.8712

are all examples of

- A) Variables
- B) Literals or constants
- C) Strings
- D) None of the aboveB

14. A group of statements, such as the contents of a function, is enclosed in

- A) Braces {}
- B) Parentheses ()
- C) Brackets <>
- D) All of the above will do A) Braces {}

Note: () are used in naming a function, as in int main()

15. Which of the following are not valid assignment statements? (Circle all that apply.)

- A) total = 9;
- B) 72 = amount;
- C) profit = 129
- D) letter = 'W'; B, C

16. Which of the following are not valid cout statements? (Circle all that apply.)

- A) cout << "Hello World";
- B) cout << "Have a nice day";
- C) cout < value;

D) cout << Programming is great fun; C, D

17. Assume $w = 5$, $x = 4$, $y = 8$, and $z = 2$. What value will be stored in result in each of the following statements?

A) result = $x + y$;

B) result = $z * 2$;

C) result = y / x ;

D) result = $y - z$;

E) result = $w \% 2$; A) 12

B) 4

C) 2

D) 6

E) 1

18. How would each of the following numbers be represented in E notation?

A) 3.287×10^6

B) -978.65×10^{12}

C) 7.65491×10^{-3}

D) -58710.23×10^{-4} A) 3.287E6

B) -9.7865E14

C) 7.65491E-3

D) -5.871023E0

19. The negation operator is

A) Unary

B) Binary

C) Ternary

D) None of the aboveA

20. A(n) _____ is like a variable, but its value is read-only and cannot be changed during the program's execution.

A) secure variable

B) uninitialized variable

C) named constant

D) locked variable C

21. When do preprocessor directives execute?

A) Before the compiler compiles your program

B) After the compiler compiles your program

C) At the same time as the compiler compiles your program

D) None of the aboveA

22. T F A variable must be defined before it can be used. TRUE

23. T F Variable names may begin with a number. FALSE

24. T F Variable names may be up to 31 characters long. TRUE

25. T F A left brace in a C++ program should always be followed by a right brace later in the program. TRUE

26. T F You cannot initialize a named constant that is declared with the const modifier. FALSE

There are a number of syntax errors in the following program. Locate as many as you can.

```
*/ What's wrong with this program? /*
```

```
#include iostream
```

```
using namespace std;
```

```
int main();
```

```
}
```

```
int a, b, c \\ Three integers
```

```
a = 3
```

```
b = 4
```

```
c = a + b
```

```
Cout < "The value of c is %d" < C;
```

```
return 0;
```

```
{ 1) The multi-line comment: correct config is /* and */.
```

```
2) <iostream> missing less than/greater than symbols.
```

```
3) No comma after int main().
```

```
4) The braces at the beginning and end of the function are reversed.
```

```
5) int a, b, c; is missing the semi-colon.
```

```
6) The single-line // are the wrong direction.
```

```
7) The three variable definitions require semi-colons or at least commas after a = 3, b = 4, and then a semi-colon after c = a + b;
```

```
8) cout needs to be lower case.
```

```
9) need two less than and two greater than symbols.
```

A name you give a variable Identifier

A number that can have a decimal. Single precision, 4 bytes and numbers between $\pm 3.4E-38$ and $\pm 3.4E38$.

approx. 7 digits.

What other data type does this data type associate with? float

double

A whole number, can be signed or unsigned and associates with long int

Can go further beyond the decimal point than float, 8 bytes, approx. 15 digits.

Very precise # w/ fractional component. double

The code compiles fine and runs, but the output is flawed Logic error

The program crashes...Ex: an operation attempted to divide by zero. Runtime error

Compilation errors resulting from illegal uses of key words, operators, punctuation, and other language elements Syntax error

Name the 7 data types in their respective order int

long

float
double

char
string

bool

Show the punctuation for:

x = 3,

Display results for 3 as an int, char, and string. 3

'3'

"3"

Associated with char, except it's composed of more than one char and uses " ". string

Uses true or false values bool

What is the % symbol called?

What are the result of the follow statements:

28 % 5 =

31 % 10 =

40 % 2 =

20 % 30 = modulus

Ex: $28 \% 5 = 5 * 5 = 25 \Rightarrow 28 - 25 = 3$. therefore the remainder is 3.

3

1

0

20

Identify two ways to input comments into a program. // single_line comments

/*

multi_line comments

*/

Which escape sequence cause a "backslash" to be printed? \\

NOTE:

to have this appear: /\ win /\

you need to input: "\\\ win \\\

Identify the escape sequences:

\n

\t

\a

\b

\r

\\

\'

\n Newline Causes the cursor to go to the next line for subsequent printing.

\t Horizontal tab Causes the cursor to skip over to the next tab stop.

\a Alarm Causes the computer to beep.

\b Backspace Causes the cursor to back up, or move left one position.

\r Return Causes the cursor to go to the beginning of the current line, not the next line.

\\ Backslash Causes a backslash to be printed.

\' Single quote Causes a single quotation mark to be printed.

\\" Double quote