

Pre-Practical activity

1) What is the output for this code:

```
int x = 10;  
double y = 3.0;  
cout << x / y;
```

- a) 3
- b) 3.0
- c) 3.33333333333
- d) Error

2) In c++ what is type promotion?

- a) Converting a larger data type into a smaller data type
- b) Converting a smaller data type into a larger data type
- c) Automatically converting incompatible types during operations
- d) None of the above

3) What is the output for this code:

```
char c = 'A';  
int i = c + 1;  
cout << i;
```

- a) 'B'
- b) 66
- c) 65
- d) Error

4) Which of the following is explicit type casting in c++?

- a) `int x = 5.5`
- b) `double x = 5`
- c) `float x = (float)5.0`
- d) `int x = 10`

5) What is the purpose of type casting?

- a) To assign values of one data type to variables of another data type
- b) To fix syntax errors in code
- c) To convert between variables of the same type
- d) To enhance the performance of a program

6) Explain the difference between implicit and explicit type conversion?

7) Consider the code below:

```
int a = 5;  
double b = 2.5;  
cout << a + b;
```

- a) Explain how type conversion is handled in this case.
- b) Modify the code so that the result is explicitly cast to an int and display it.

8) Write a C++ program that converts a floating-point number to an integer using both implicit and explicit type casting.