Question 1 Answer: Shortcut: ctrl+k+ c/u

Question 2 Answer:

A runtime error happens while the program is running. It usually causes the program to crash.

```
int x = 5;

int y = 0;

int result = x / y;
```

This error occurs when trying to divide by zero, which is not allowed.

A logical error is when the program runs fine, but gives the wrong result due to a mistake in logic.

```
int x = 5;

int y = 10;

int result = x + y;

Console.WriteLine(result);
```

Question 3 Answer: To ease readability of the code and to follow best practice conventions

Question 4 Answer: Value types are stored directly in the stack memory. They contain the actual data. Reference types are stored in the heap memory. The variable holds a reference (address) to the actual data stored in the heap.

Value types are copied when assigned to a new variable, while reference types share the same memory address unless explicitly copied.

Question 5 Answer: 2%7 = 2 because the modulus(%) operator gets the remainder of two numbers

Question 6 Answer: && operator works on the short circuit so it doesn't need to continue an operation if it is valid, bitwise & operator works on the long circuit so it validates through the end of an operation.

Question 7 Answer: Because a double data type is larger in storage size and can store a floating point number and more digit count than an int so it needs to be explicitly casted to acknowledge a possible data loss or error.

Question 8 Answer: the ternary operator will return false.

Question 9 Answer: 7 because at the end of the execution it will be incremented two times