1. What happens when you divide an int variable by 0?

System.DivideByZeroException: "Attempted to divide by zero."  
2. What happens when you divide a double variable by 0?

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3. What happens when you overflow an int variable, that is, set it to a value beyond its range?

Operation overflow at compile time  
4. What is the difference between x = y++; and x = ++y;?

The prefix increment returns the value of a variable after it has been incremented.

On the other hand, the more commonly used postfix increment returns the value of a variable before it has been incremented.  
5. What is the difference between break, continue, and return when used inside a loop  
statement?

Break: break the loop

Continue: Stop the current round and go to the next round

Return： return to the value that the return type of function  
6. What are the three parts of a for statement and which of them are required?

The first segment initialises the variable(s) we want to use in the loop. The second part checks the loop's condition before each loop cycle. And the last portion is a so-called iterator.