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?