1. A program must have exactly one method static void main (string[] args) { ... }
2. Check variable type assignments.
3. Classes can only extend previously defined classes. In other words, a class cannot extend itself or another class defined later in the program.
4. A class cannot have multiple methods with the same name, even if the methods have different number of types of arguments, or different return types.
5. Identifiers, regardless of their kind, cannot be defined multiple times in the same scope. The exception to this rule regards inheritance where identifiers, regardless of their kind, cannot be defined multiple times in the same scope or the scope of the superclass.
6. loc = exp . The updated location loc can be a local variable, a parameter, a field, or an array element. The type of the updated location must match the type of the evaluated expression.
7. The break and continue statements must occur in the body of an enclosing loop in the current method.
8. Arithmetic operators: addition +, subtraction -, multiplication \*, division /, and mod-ulo %. The operands must be integers.
9. Relational comparison operators: less than <, less or equal than <=, greater than >, and greater or equal then >=. Their operands must be integers.
10. Conditional operators- The operands must be booleans.
11. in order for a variable to be used in a statement it must be declared in a preceding statement.
12. each variable is assigned before it is used. Violations of this rule will cause compilation errors.
13. Hidden fields are not permitted either. All of the newly deiffned fields in a subclass must have different names than those in the superclasses. However, methods can be overridden in subclasses. Subclasses can re-define more specialized versions of methods defined in their superclasses.
14. Subtyping is not covariant for array types: if A is a subtype of B then A[ ] is not a subtype of B[ ]. Instead, array subtyping is type invariant, which means that each array type is only a subtype of itself.
15. At each method invocation, the number and types of actual values of the call site must be the same as the number and types of formal parameters in the method declaration.
16. values returned by return statements must agree with the corresponding return types from method declarations. If a method is declared to return void, then return statements in the body of the method cannot return values. If the method is declared with a return type T, then all return statements must return values of type T. the method body is required to have a return statement on each program path.
17. local variables and method parameters can only be used after they are defined in one of the enclosing block or method scopes.
18. Class names, fields, and methods can be used before the program declares them. However, the program must eventually declare them.
19. Conditions inside if and while statements must be Boolean.
20. Shadowing method parameters with local variables is illegal.

void foo(int x) {

int x = 1;

}