

Below are the rules about what makes a constant expression. They are taken directly from Java Language Specification and here is the direct link: <http://docs.oracle.com/javase/specs/jls/se7/html/jls-15.html#jls-15.28>. We already discussed the most common rules. So, don't worry if you are not understanding all the rules. Also, you can check out <http://www.coderanch.com/t/454384/java/java/compile-time-constant>. It is also about these rules and you can find it helpful and it is a great pointer on constant variables.

From Java Language Specification:

A compile-time *constant expression* is an expression denoting a value of primitive type or a String that does not complete abruptly and is composed using only the following:

- Literals of primitive type and literals of type String ([§3.10.1](#), [§3.10.2](#), [§3.10.3](#), [§3.10.4](#), [§3.10.5](#))
- Casts to primitive types and casts to type String ([§15.16](#))
- The unary operators +, -, ~, and ! (but not ++ or --) ([§15.15.3](#), [§15.15.4](#), [§15.15.5](#), [§15.15.6](#))
- The multiplicative operators *, /, and % ([§15.17](#))
- The additive operators + and - ([§15.18](#))
- The shift operators <<, >>, and >>> ([§15.19](#))
- The relational operators <, <=, >, and >= (but not instanceof) ([§15.20](#))
- The equality operators == and != ([§15.21](#))
- The bitwise and logical operators &, ^, and | ([§15.22](#))
- The conditional-and operator && and the conditional-or operator || ([§15.23](#), [§15.24](#))
- The ternary conditional operator ? : ([§15.25](#))
- Parenthesized expressions ([§15.8.5](#)) whose contained expression is a constant expression.
- Simple names ([§6.5.6.1](#)) that refer to constant variables ([§4.12.4](#)).
- Qualified names ([§6.5.6.2](#)) of the form *TypeName* . *Identifier* that refer to constant variables ([§4.12.4](#)).

Other good pointers on final variables:

<http://www.javapractices.com/topic/TopicAction.do?Id=23>

<http://stackoverflow.com/questions/154314/when-should-one-use-final-for-method-parameters-and-local-variables>