

Question	Answer	Explanation
1	A	In Java, it is not possible declaring different types as part of the same declaration.
2	D	The code does not compile because chair is not initialized.
3	B	It does not default to an empty string. If the variable is a local variable, it does not have a default value. It will compile without initializing on the declaration line. Instance variables have a default value based on the type. For any non-primitive, including String, that type is a reference to null.
4	B	Valid variable name must start with a letter, \$, or _.
5	B	Class names start with an uppercase letter by convention in java. Then lowercase letter with the exception of new words can be usable.
6	C	Objects have instance methods but primitives do not. Because int is a primitive, you cannot call instance methods on it. Integer and String are both objects and have instance methods.
7	C	Underscores are not allowed at the beginning or end of the literal.
8	C	int is a primitive. Int is not the name of a class in Java. Object is a class in Java, it is not a wrapper class because it does not map to a primitive. Integer is a wrapper class.
9	C	There is a primitive int and a class Integer and there is no class named integer so the code does not compile. If the type of class changes to Integer, result can be 5.
10	C	The new keyword is used to call the constructor for a class and instantiate an instance of the class. A primitive cannot be created using the new keyword. Dealing with references happens after the object created by new is returned.
11	D	Line p4 needs suffix like f to compile without error.
12	A	Lists of primitive types are presented in order from smallest to largest data type: byte < char < float < double.
13	D	There is no order within a class declaration between instance variables, constructor and method names.
14	B	In Java, it is not possible to declare multiple Java data types in the same declaration. It must be same data types in same line.
15	C	There are two initializers in this code. There are in lines 2 and 7.
16	A	Without initialized, code will not compile with any type. To compile the code, defaultValue must initialize as 0 or 0.0.
17	A	The finalize() method is not working automatically when the program crashes so it may be called zero or one times.
18	D	Wrapper classes are Boolean, Byte, Character, Double, Float, Integer, Long and Short so String is not a wrapper class. String is a class.
19	C	Between Lines 15 and 17 create three objects. Between lines 18 and 19 change the references so link2 and link3 point to each other. The lines 20 and 21 wipe out two of the original references so object x is inaccessible.
20	C	3.14 is automatically a double. To assign to a float, casting to float or writing 3.14f is necessary.
21	B	Integer is the name of a class in Java so it is not allowed to use the name of a class as your local variable name. Reserved word like int can not be usable for a variable name.
22	B	Dot notation is using for both reading and writing instance variables. It cannot be used for referencing local variables.
23	C	The first character of an identifier cannot be number.
24	D	There is an underscore right before the decimal point but it is not legal as the underscore in a numeric literal can only appear between two digits.
25	C	Local variable does not have a default value. If it is referenced before being set to a value, the code does not compile. If the variable is an instance variable, it defaults to null. A local variable will compile without an initialization if it isn't referenced anywhere or it is assigned a value before it is referenced.
26	C	defaultValue is an instance variable so it is automatically initialized to corresponding value for that type. int, long and short can be usable for 0. For double, value must be 0.0.
27	B	Java will automatically convert from primitive to wrapper class types and vice versa. You can only call methods on an object. This method is used for converting to a wrapper class from a String. Autoboxing will convert the primitive to an object before adding it to the ArrayList.
28	C	The code does not compile because of the last line. Java does not allow calling a method on primitive. While autoboxing does allow the assignment of an Integer to an int, it does not allow calling an instance method on a primitive.
29	D	To call a constructor, the new keyword must be required. It cannot be called as if it was a normal

		method.
30	A	1 correctly assigns the value to both variables. 2 does not compile because dog does not have a type. The semicolon in that line, which starts a new statement. 3 compiles but only assigns the value to dog since a declaration only assigns to one variable rather than everything in the declaration. 4 does not compile because the type should only be specified once per declaration.
31	C	The wrapper class for int is Integer and the wrapper class for char is Character. Others' wrapper classes are same name.
32	A	String instance variables can be set to null.
33	A	All primitive types begin with a lowercase letter. Unlike object reference variables, primitives cannot reference null. String is not a primitive. You cannot create your own primitive types but you can create your own classes.
34	D	While you can suggest to the JVM that it might want to run a garbage collection cycle, the JVM is free to ignore your suggestion.
35	C	Two String objects eligible for garbage collection because all three references point to the String apple.
36	B	The newly constructed Double object can be assigned to either a double or Double thanks to autoboxing.
37	B	A line 2 run first and variable is set. Then the instance initializer on line 6 runs. Finally, the constructor runs. Since the constructor is the last to run of the three, that is the value that is set when we print the result as "constructor"
38	D	Primitives cannot have a null reference but objects can have so Integer and String are allowed to have null reference.
39	C	An instance variable only be referenced from instance methods in the class. A static variable can be referenced from any method.
40	B	Underscores are not using to adjacent to a decimal point.
41	A	Lists of primitive numeric types is presented in order from smallest to largest data type: byte < short < int < long.
42	A	In Java, dot notation is using to reference instance variables in a class.
43	B	finalizer is a normal method that does not get called automatically. Therefore clean is never output.
44	A	In Java, braces are for arrays rather than instance variables. It uses dot notation to access the instance variable.
45	B	The parseInt() methods return a primitive. The valueOf() methods return a wrapper class object so int will be for parseInt() method and Integer will be for valueOf() method.
46	B	The elena and zoe objects have a direct reference. The diana object is referenced through the elena object. In line 10, the reference to the diana object is replaced by a reference to the zoe object. Therefore, the diana object is eligible to be garbage collected.
47	C	public TennisBall() { } is a valid constructor for this class.
48	A	play is called twice so output will be "play-play-". GC is not guaranteed to run on demand.
49	B	Each wrapper class has a constructor that takes the primitive equivalent so answer is call the constructor of the wrapper class.
50	C	When the main() method runs, constructor create an output as "a". After that run() method call and constructor calls again and its output is "a". Then run() method calls Sand() method and its output is "b". Finally the output is "aab".

## Reference

Scott S, Jeanne B.: OCA/OCP Java SE 8 Programmer Practice Tests. Indiana, USA: 2017.