# Chapter Review Questions

Name: Aamir Khan

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Chapter 8 Review Questions (10 points):

1. What static method in the String class is similar to method System.out.printf, but returns a formatted String rather than displaying a String?

**The format method.**

1. What method is called implicitly when an object appears in code where a String is needed?

**The toString method.**

1. What type of method tests whether a condition is true or false?

**A predicate method.**

1. What type of relationship is a composition sometimes referred to as?

**A “has-a” relationship.**

1. What type of variable represents class-wide information that is shared by all the objects of the class?

**A static variable.**

1. What OOP principle states that code should be granted only the necessary amount of privilege and access that it needs to accomplish its task(s)?

**The principle of least privilege.**

1. What keyword is used to specify that a variable is not modifiable after initialization in a declaration or constructor?

**The final keyword.**

1. Explain the notion of package access in Java.

**In a program with just one class declaration, package access doesn’t really have an effect. However, if a program uses multiple classes in the same package, these classes have access to each other’s package-access members directly. In other words, the term’s name comes from the fact that classes in the same package have access to each other’s package-access members.**

1. Explain the negative aspects of package access.

**If only one class declaration is used, there’s no need to specify package access as it has no necessary effect. Another negative aspect is that when it’s used with instance variables, data encapsulation is lost because we’re now able to access these variables from the same package. We no longer have data hiding taking place, which isn’t a good thing to leave out.**

1. How does the Java compiler treat a constructor with a return type, even if void is used?

**The java compiler will just treat it as a method, not a constructor. It won’t even be considered as a constructor if a return type is specified.**