Example: Consider the following program with five classes and one **interface**.

**public interface** IBook {  
 **public abstract void** setPages(**int** pages);  
 **public abstract int** getPages();  
}

**public class** Book **implements** IBook {  
 **protected int pages** = 1500;  
 **private** Publisher **publisher**;  
 **public** Book(Publisher publisher) {  
 **this**.**publisher** = publisher;  
 }  
 **public** Book(Publisher publisher, **int** pages) {  
 **this**.**publisher** = publisher;  
 **this**.**pages** = pages;  
 }  
 **public void** setPages(**int** numPages) {  
 **pages** = numPages;  
 }  
 **public int** getPages() {  
 **return pages**;  
 }  
 **public** Publisher getPublisher() {  
 **return publisher**;  
 }  
 **public void** setPublisher(Publisher publisher) {  
 **this**.**publisher** = publisher;  
 }  
}

**public class** Dictionary **extends** Book {  
 **private int definitions** = 52500;  
 **public** Dictionary(Publisher publisher) {  
 **super**(publisher);  
 }  
 **public** Dictionary(Publisher publisher, **int** pages) {  
 **super**(publisher, pages);  
 }  
 **public** Dictionary(Publisher publisher, **int** pages, **int** definitions) {  
 **super**(publisher, pages);  
 **this**.**definitions** = definitions;  
 }  
 **public double** computeRatio() {  
 **return definitions**/**pages**;  
 }  
 **public void** setDefinitions(**int** numDefinitions) {  
 **definitions** = numDefinitions;  
 }  
 **public int** getDefinitions() {  
 **return definitions**;}  
}

**public class** Publisher {  
 **private** String **name**;  
 **private** Address **address**;  
 **public** Publisher(String name, Address address) {  
 **this**.**name** = name;  
 **this**.**address** = address;  
 }  
 **public** String getName() {  
 **return name**;  
 }  
 **public** Address getAddress() {  
 **return address**;  
 }  
}

**public class** Address {  
 **private** String **streetAddress**, **city**, **state**;  
 **private long zipCode**;  
 **public** Address(String street, String town, String st, **long** zip) {  
 **streetAddress** = street;  
 **city** = town;  
 **state** = st;  
 **zipCode** = zip;  
 }  
 **public** String toString() {  
 String result;  
 result = **streetAddress** + **"\n"**;  
 result += **city** + **", "** + **state** + **" "** + **zipCode**;  
 **return** result;  
 }  
}

**public class** Words {  
 **public** Words() {}  
 **public static void** main(String[] args) {  
 Dictionary webster = **new** Dictionary();  
 System.***out***.println(**"Number of pages: "** +  
 webster.getPages());  
 System.***out***.println(**"Number of definitions: "** +  
 webster.getDefinitions());  
 System.***out***.println(**"Definitions per page: "** +  
 webster.computeRatio());  
 }  
}