Factorials

Develop a Java application that will calculate the factorial of a given number. The factorial class takes a number as a constructor parameter and has a method called getFactorial() that returns the factorial. Use the Factorial.java and FactorialTest.java files included in the assignment as a starting point and use class Scanner to obtain the data from the user.

MPG

Drivers are concerned with the mileage their automobiles get. One driver has kept track of several tankfuls of gasoline by recording the miles driven and gallons used for each tankful. Develop a Java application that will input the miles driven and gallons used (both as integers) for each tankful. The program should calculate and display the miles per gallon obtained for each tankful and print the combined miles per gallon obtained for all tankfuls up to this point. All averaging calculations should produce floating-point results. Use class Scanner and sentinel-controlled repetition to obtain the data from the user.

Calculate OPS

OBP—[On base percentage](http://en.wikipedia.org/wiki/On_base_percentage): times reached base (H + BB + HBP) divided by at bats plus walks plus hit by pitch plus sacrifice flies (AB + BB + HBP + SF).

SLG—[Slugging average](http://en.wikipedia.org/wiki/Slugging_average): total bases divided by at-bats