Introduction to Java Programming

Sheet # 06: Methods

- **Textbook: Introduction to Java Programming and Data Structures, Comprehensive Version (11th Edition)**
- **This sheet covers chapter 06 "Methods"**

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➢ Check Point Questions:

Review the questions at the following URL:
https://liveexample.pearsoncmg.com/checkpoint12/Chapter6.html

➢ Solve the following Programming Exercises from the textbook (pages 258-268)

6.2	6.3	6.5	6.12	6.13	6.15
6.20	6.23	6.25	6.32	6.33	6.37

➢ Mini Project: Computing Future Investment Value

Write a method that computes future investment value at a given interest rate for a specified number of years. The future investment is determined using the following formula:

$$futureInvestmentValue = investmentAmount \times (1 + monthlyInterestRate)^{numberOfYears*12}$$

Use the following method header:

```
public static double futureInvestmentValue(
double investmentAmount, double monthlyInterestRate, int years)
```

For example, futureInvestmentValue(10000, 0.05/12, 5) returns 12833.59.

Write a test program that prompts the user to enter the investment amount (e.g., 1000) and the interest rate (e.g., 9%) and prints a table that displays future value for the years from 1 to 30, as shown below:

```
The amount invested: 1000

Annual interest rate: 9%
Years                   Future Value
1                        1093.80
2                        1196.41
...
29                      13467.25
30                      14730.57
```

With our best wishes;