SET A

1. Write a Java program that calculates and prints the monthly pay for an employee. The net pay is calculated after taking the following deductions:

Withholding Tax	15%
SSS Contribution	3.63%
Medicare	1.25%
Pag-IBIG	PHP 100.00

2. Initialize two (2) variables to hold the employee name and the gross pay (amount before deductions). See sample output below.

```
Employee Name:          Jess Diaz
Gross Pay:              25000.0

Deductions              Amount
Witholding Tax:         3750.0
SSS Contribution:       907.5
Medicare:               312.5
Pagibig Contribution:   100.0

Net Pay:                19930.0
```

Write a Java program to estimate the value of m in the following equation for a given value x and t.

$$m = \left(\frac{\sqrt{3}t^2}{\sqrt{t}+x}\right)^x + \log_{10}\left(\frac{\sqrt{t+3}}{t^2}\right)^t$$

SET B

2. Write a Java program to calculate and print the monthly paycheck for an employee. The net pay is calculated after taking the following deductions:

```
    Federal income tax   = 15%
    State income tax     = 5%
    Social security tax  = 5%
    Medicare/Medicaid    = 3%
    Pension plan         = 8%
    Health insurance     = $125.00
```

Your program should ask the user to input the employee ID, last name, first name, and the earnings (gross amount) for current month. The output should be the net pay, after deductions. Format the output to have 2 decimal places.

Sample output:

```
Employee ID:                        12345
Employee Name:                   John Doe
=======================================
EARNINGS                         4500.00
Federal Tax                       675.00
State Tax                         225.00
Social Security                   225.00
Medicare/Medicaid                 135.00
Pension Plan                      360.00
Health Insurance                  125.00
=======================================
NET PAY                          2755.00
```

Write a Java program to estimate the value of m in the following equation for a given value x and t.

$$m = \log_{10}\left(\frac{1}{\sqrt{\sqrt{t}}}\right) - \left(\left(\sqrt{t-2}\right)^t\right)^{t+x}$$