```java
public class Calculator
{
     private double currentValue = 0;

     public Calculator(double value)
     {
          currentValue = value;
     }

     public void setCurrentValue(double currentValue)
     {
          this.currentValue = currentValue;
     }

     public double getCurrentValue()
     {
          return currentValue;
     }

     public void clear()
     {
          currentValue = 0;
     }

     public void add(double pNumber)
     {
          currentValue = currentValue + pNumber;
     }

     public void subtract(double pNumber)
     {
          currentValue = currentValue - pNumber;
     }

     public void multiplyBy(double pNumber)
     {
          currentValue = currentValue * pNumber;
     }

     public void divideBy(double pNumber)
     {
          currentValue = currentValue / pNumber;
     }

     public void sqr()
     {
          currentValue = Math.pow(currentValue, 2);
     }

     public void sqrt()
     {
          currentValue = Math.sqrt(currentValue);
     }

     public void round()
     {
          currentValue = Math.round(currentValue);
     }

     public void sin()
     {
          currentValue = Math.sin(currentValue);
     }

     public void cos()
     {
          currentValue = Math.cos(currentValue);
     }

     public void tan()
     {
          currentValue = Math.tan(currentValue);
     }

     public void factorial()
     {
          int n = (int) Math.abs(currentValue);
          currentValue = 1;
          for (int i = 1; i <= n; i++)
               currentValue = currentValue * i;
     }
}
```

```java
public class MainFrame extends javax.swing.JFrame
{
     /*
      * Version Std: Calculateur non RPN mais "std"
      *              p.ex. 3 + 2 = ... - 5 =
      * sin est fait directement sur le nombre présent sur l'affichage
      */
     private Calculator calc = null;
     private String operation = "";

     public MainFrame()
     {
          initComponents();
          calc = new Calculator(0);
     }

     public void updateView()
     {
          currentValueTextField.setText(String.valueOf(calc.getCurrentValue()));
     }
// Skipped: ... initComponents { ... }
    private void addButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_addButtonActionPerformed
          operation = "+";
    }//GEN-LAST:event_addButtonActionPerformed

    private void subtractButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_subtractButtonActionPerformed
          operation = "-";
    }//GEN-LAST:event_subtractButtonActionPerformed

    private void multiplyButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_multiplyButtonActionPerformed
          operation = "*";
    }//GEN-LAST:event_multiplyButtonActionPerformed

    private void divideButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_divideButtonActionPerformed
          operation = "/";
    }//GEN-LAST:event_divideButtonActionPerformed

    private void cosButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_cosButtonActionPerformed
          calc.setCurrentValue(Double.valueOf(currentValueTextField.getText()));
          calc.cos();
          updateView();
    }//GEN-LAST:event_cosButtonActionPerformed

    private void sqrButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_sqrButtonActionPerformed
          calc.setCurrentValue(Double.valueOf(currentValueTextField.getText()));
          calc.sqr();
          updateView();
    }//GEN-LAST:event_sqrButtonActionPerformed

    private void roundButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_roundButtonActionPerformed
          calc.setCurrentValue(Double.valueOf(currentValueTextField.getText()));
          calc.round();
          updateView();
    }//GEN-LAST:event_roundButtonActionPerformed

    private void sinButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_sinButtonActionPerformed
          calc.setCurrentValue(Double.valueOf(currentValueTextField.getText()));
          calc.sin();
          updateView();
    }//GEN-LAST:event_sinButtonActionPerformed

    private void tanButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_tanButtonActionPerformed
          calc.setCurrentValue(Double.valueOf(currentValueTextField.getText()));
          calc.tan();
          updateView();
    }//GEN-LAST:event_tanButtonActionPerformed

    private void factorialButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_factorialButtonActionPerformed
          calc.setCurrentValue(Double.valueOf(currentValueTextField.getText()));
          calc.factorial();
          updateView();
    }//GEN-LAST:event_factorialButtonActionPerformed

    private void sqrtButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_sqrtButtonActionPerformed
          calc.setCurrentValue(Double.valueOf(currentValueTextField.getText()));
          calc.sqrt();
          updateView();
    }//GEN-LAST:event_sqrtButtonActionPerformed

    private void resultButtonActionPerformed(java.awt.event.ActionEvent evt) {//GEN-FIRST:event_resultButtonActionPerformed
          double v = Double.valueOf(currentValueTextField.getText());
          if (operation.equals("+"))
               calc.add(v);
          else if (operation.equals("-"))
               calc.subtract(v);
          else if (operation.equals("*"))
               calc.multiplyBy(v);
          else if (operation.equals("/"))
               calc.divideBy(v);
          else
          {
               // NE RIEN FAIRE! car pas d'opération définie
          }

          // opération terminée...
          operation = "";
          updateView();
    }//GEN-LAST:event_resultButtonActionPerformed
```

```
    /**
     * @param args the command line arguments
     */
    public static void main(String args[])
    {
        java.awt.EventQueue.invokeLater(new Runnable()
        {
            public void run()
            {
                new MainFrame().setVisible(true);
            }
        });
    }

    // Variables declaration - do not modify//GEN-BEGIN:variables
    private javax.swing.JButton addButton;
    private javax.swing.JButton cosButton;
    private javax.swing.JTextField currentValueTextField;
    private javax.swing.JButton divideButton;
    private javax.swing.JButton factorialButton;
    private javax.swing.JButton multiplyButton;
    private javax.swing.JButton resultButton;
    private javax.swing.JButton roundButton;
    private javax.swing.JButton sinButton;
    private javax.swing.JButton sqrButton;
    private javax.swing.JButton sqrtButton;
    private javax.swing.JButton subtractButton;
    private javax.swing.JButton tanButton;
    // End of variables declaration//GEN-END:variables
}
```