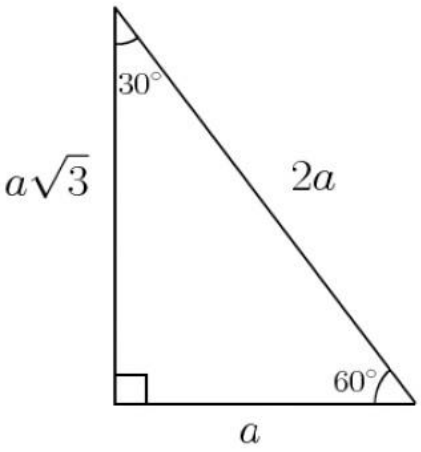
CSCD 210
Lab 2

SPECIFICATIONS:

Complete and execute a program for the following. I have provided the class header and body and the main method header and empty body.



The ratios of the lengths of sides in a 30-60-90 triangle are constant.

Base = a
Side = 2a
Height = a√3

You must write a Java program that in this order:

- Creates a Scanner object named kb
- Prompts the user to enter a value for a
- Using the Scanner object read in the value for a
- Prompts the user for their name
- Using the Scanner object read in the value for the name
- Displays the name and the values, using println for
    - Base (a)
    - Side (2a)
    - Height (a square root 3)
    - Area
    - Sin of 30% (must use Math class)
    - Cos of 30% (must use Math class)
    - Tangent of 30% (must use Math class)
- Close the Scanner object kb

You must use the Math class for square root, sin, cos, and tangent.

You must format the output to 3 decimal places (Must use DecimalFormat).

The type on the variable **a** will be of type double.

After you compile and execute your program capture the output, for at least 3 different runs. (0, < 0, >0 and 2 of your choice) Save the output into a text file named **cscd210lab2out.txt**.

SAMPLE OUTPUT:

```
Please enter a positive value for a 2.5
Please enter your name Stu
Stu - A 30-60-90 triangle with a base of 2.500, side of 5.000, height
of 4.330, has an area of 5.413
```

TO TURN IN:

A zip file that contains Lab2 folder which contains:

- All your Java code including the package
- cscd210lab2out.txt

Name the zip file your last name first letter of your first name lab2.zip
(Example: steinerslab2.zip)