

PROBLEM 2.5

If value of an angle is input through the keyboard, write a program to print all its trigonometric ratios.

ALGORITHM

1. Start
2. Declare float variable a
3. Calculate $\sin(a)$ and print the result
4. Calculate $\cos(a)$ and print the result
5. Calculate $\tan(a)$ and print the result
6. Calculate $\cot(a)$ and print the result
7. Calculate $\sec(a)$ and print the result
8. Calculate $\operatorname{cosec}(a)$ and print the result
9. Stop

PSEUDOCODE

```
DECLARE FLOAT a
DISPLAY "SINE of angle a is : sin(a)"
DISPLAY "COSINE of angle a is : cos(a)"
DISPLAY "TANGENT of angle a is : tan(a)"
DISPLAY "COTANGENT of angle a is : cot(a)"
DISPLAY "SECANT of angle a is : sec(a)"
DISPLAY "COSECANT of angle a is : cosec(a)"
```

FLOWCHART

```
flowchart TD
    A([Start]) --> B[Declare variable a]
    B --> C[/display SINE of angle a/]
    C --> D[/display COSINE of angle a/]
    D --> E[/display TANGENT of angle a/]
    E --> F[/display COTANGENT of angle a/]
    F --> G[/display SECANT of angle a/]
    G --> H[/display COSECANT of angle a/]
    H --> I([Stop])
```