

PROBLEM 4.3

Write a program to find the greatest of the three numbers entered through the keyboard. Use conditional operators.

ALGORITHM

1. Start
2. Declare integer variables a,b and c and take input
3. If a=b=c, display "all are equal". Else, go to step 4.
4. If a is greater than b and a is greater than c, display "a is greatest of three"
5. Else if b is greater than a and b is greater than c, display "b is greatest of three"
6. Else if c is greater than b and c is greater than a, display "c is greatest of three"
7. Stop ### PSEUDOCODE

```
START
DECLARE INTEGER a,b,c
INPUT a,b,c
IF a == b == c
    DISPLAY "All three are equal"
ELSE
    IF a>b AND a>c
        DISPLAY "a is greatest of three"
    ELSE
        IF b>a AND b>c
            DISPLAY "b is greatest of three"
        ELSE
            DISPLAY "c is greatest of three"
        ENDIF
    ENDIF
ENDIF
STOP
```

FLOWCHART

```
flowchart TD
    A([Start]) --> B[/Declare integer variables a,b and c/]
    B --> C[/Take a,b and c as input/]
    C --> D{If a is equal to both b and c}
    D --> |True| E[/Display "all numbers are equal"/]
    D --> |False| F{If a is greater than both b and c}
    F --> |True| G[/Display a is greatest of three/]
    F --> |False| H{If b is greater than both a and c}
    H --> |True| I[/Display b is greatest of three/]
    H --> |False| J[/Display c is greatest of three/]
```

```
I --> K([Stop])  
J --> K
```