Exercises on Algorithms using the conditional IF

Exercise 1 :
Write an algorithm that requires input two numbers, it will show the largest number.

Solution 1 :

```
START
        Variables X, Y, Z

        WRITE “Enter First Number : ”
        READ X
        WRITE “Enter Second Number : ”
        READ Y

        IF (X > Y)
                Z := X
        ELSE
                Z := Y
        THEN WRITE “The Largest Number Is : ” Z
END
```

Exercise 2 :
Write an algorithm that requires input two numbers, it will show the smaller number.

Solution 2 :

```
START
        Variables X, Y, Z

        WRITE “Enter First Number : ”
        READ X
        WRITE “Enter Second Number : ”
        READ Y

        IF (X < Y)
                Z := X
        ELSE
                Z := Y

        WRITE “The Largest Number Is : ” Z

END
```

Exercise 3 :
Write an algorithm that requires input three numbers, it will show the largest and the smallest number.

Solution 3 :

```
START
```

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```
        Variables A, X, Y, Z
        WRITE “Enter First Number : ”
        READ A
        WRITE “Enter second Number : ”
        READ X
        WRITE “Enter Third Number : ”
        READ Y

        IF (A > X) AND (X > Y)
        WRITE “The Largest Number Is : ” A
        WRITE “The Smallest Number Is : ” Y

        ELSE IF (X > A) AND (A > Y)
        WRITE “The Largest Number Is : ” X
        WRITE “The Smallest Number Is : ” Y

        ELSE IF (Y > A ) AND (A > X)
        WRITE “The Largest Number Is : ” Y
        WRITE “The Smallest Number Is : ” X

        ELSE IF (A > Y) AND (Y > X)
        WRITE “The Largest Number Is : ” A
        WRITE “The Smallest Number Is : ” X

        ELSE IF (X > Y) AND (Y > A)
        WRITE “The Largest Number Is : ” X
        WRITE “The Smallest Number Is : ” A

        ELSE (Y > X) AND (X > A)
        WRITE “The Largest Number Is : ” Y
        WRITE “The Smallest Number Is : ” A
END
```

Solution 3 :

```
START
        Variables A, X, Y, Z
        WRITE “Enter First Number : ”
        READ A
        WRITE “Enter second Number : ”
        READ X
        WRITE “Enter Third Number : ”
        READ Y

        IF (A > X)
                Z:= A
        ELSE
                Z:= X
```

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```
        IF (Y > Z)
                Z:=Y
                WRITE “The Largest Number Is : ” Z

        IF (A < X)
                Z:= A
        ELSE
                Z:= X

        IF (Y < Z)
                Z:=Y
                WRITE “The Smallest Number Is : ” Z
END
```

Exercise 4 :

Write an algorithm that requires input 5 numbers, it will show the result of the addition if the first number is bigger than 0, else it will show the result of the subtraction of the 5 numbers

Solution 4 :

```
START
        Variables A, B, C, D, E, TOTAL
        WRITE “Enter the Number : ” A
        READ A
        WRITE “Enter the Number : ” B
        READ B
        WRITE “Enter the Number : ” C
        READ C
        WRITE “Enter the Number : ” D
        READ D
        WRITE “Enter the Number : ” E
        READ E

        IF (A > 0)
                TOTAL = A + B + C + D + E
                WRITE “The Result Is : ” TOTAL
        ELSE
                TOTAL = A – B – C – D – E
                WRITE “The Result Is : ” TOTAL
END
```

Translate those algorithms into Java programs.
Upload your file by LEA of Omnivox.
Thank you.

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