

Write a Fortran 90 program to implement the function

$$f(x) = \begin{cases} 2x - 1 & , x \geq 3 \\ 3x - 4 & , x < 3 \end{cases}$$

using

1. IF THEN statement (with no ELSE).
2. IF THEN ELSE statement.

```
PROGRAM ProgL7
```

```
! Input: x
```

```
! Output : f(x), where f is defined above.
```

```
! This function uses IF THEN statement (with no ELSE).
```

```
IMPLICIT NONE
```

```
REAL :: x, fx
```

```
PRINT *, "Enter x"
```

```
READ *, x
```

```
IF (x >= 3) THEN
```

```
    fx=2.0*x-1.0
```

```
END IF
```

```
IF (x < 3) THEN
```

$$fx=3.0*x-4.0$$

END IF

PRINT *, "The value of f at x= ", x, " is ", fx

END PROGRAM ProgL7

PROGRAM ProgL8

! Input: x

! Output : $f(x)$, where f is defined above.

! This function uses IF THEN ELSE statement.

IMPLICIT NONE

REAL :: x, fx

PRINT *, "Enter x"

READ *, x

IF (x >= 3) THEN

$$fx=2.0*x-1.0$$

ELSE

$$fx=3.0*x-4.0$$

END IF

PRINT *, "The value of f at x= ", x, " is ", fx

END PROGRAM ProgL8