CSCE 150 **Fall 2000**

Write a Fortran 90 program to implement the function

$$f(x) = \begin{cases} x-2 & , x < 4 \\ -7 & , x = 4 \\ 3x-2 & , x > 4 \end{cases}$$

using

1. IF ELSE.

2. IF-ELSE IF.

```
PROGRAM ProgL9

! Input: x

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

! This function uses IF ELSE.

IMPLICIT NONE

REAL :: x, fx

PRINT *, "Enter x"

READ *, x

IF (x < 4.0) THEN

        fx=x-2.0

ELSE
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        IF (x==4.0) THEN
            fx=-7.0
        ELSE
            fx=3.0*x-2.0
        END IF
END IF
PRINT *, "The value of f at x= ", x, " is ", fx
END PROGRAM ProgL9
PROGRAM ProgL10
! Input: x
! Output : f(x), where f is defined above.
! This function uses IF-ELSE IF.
IMPLICIT NONE
REAL :: x, fx
PRINT *, "Enter x"
READ *, x
IF (x < 4.0) THEN
        fx=x-2.0
ELSE IF (x==4.0) THEN
```

```
        fx=-7.0
ELSE
        fx=3.0*x-2.0
END IF
PRINT *, "The value of f at x= ", x, " is ", fx
END PROGRAM ProgL10
```