Algorithm:

Start

Input a number num from the user.

If num is less than 2, print "Not a Prime Number" and go to step 8.

Initialize is_prime = True.

Loop from i = 2 to sqrt(num):

- If num is divisible by i, set is_prime = False and exit the loop.

If is_prime is True, print "num is a Prime Number".

Else, print "num is NOT a Prime Number".

End

PSEUDOCODE:

BEGIN

   DISPLAY "Enter a number:"

   INPUT num

   IF num < 2 THEN

     DISPLAY "Not a Prime Number"

     EXIT

   SET is_prime = True

   FOR i FROM 2 TO sqrt(num) DO

     IF num MOD i = 0 THEN

       SET is_prime = False

       BREAK

     ENDIF

   END FOR

```
    IF is_prime = True THEN

        DISPLAY num, "is a Prime Number"

    ELSE

        DISPLAY num, "is NOT a Prime Number"

    ENDIF

END
```

FLOWCHART: