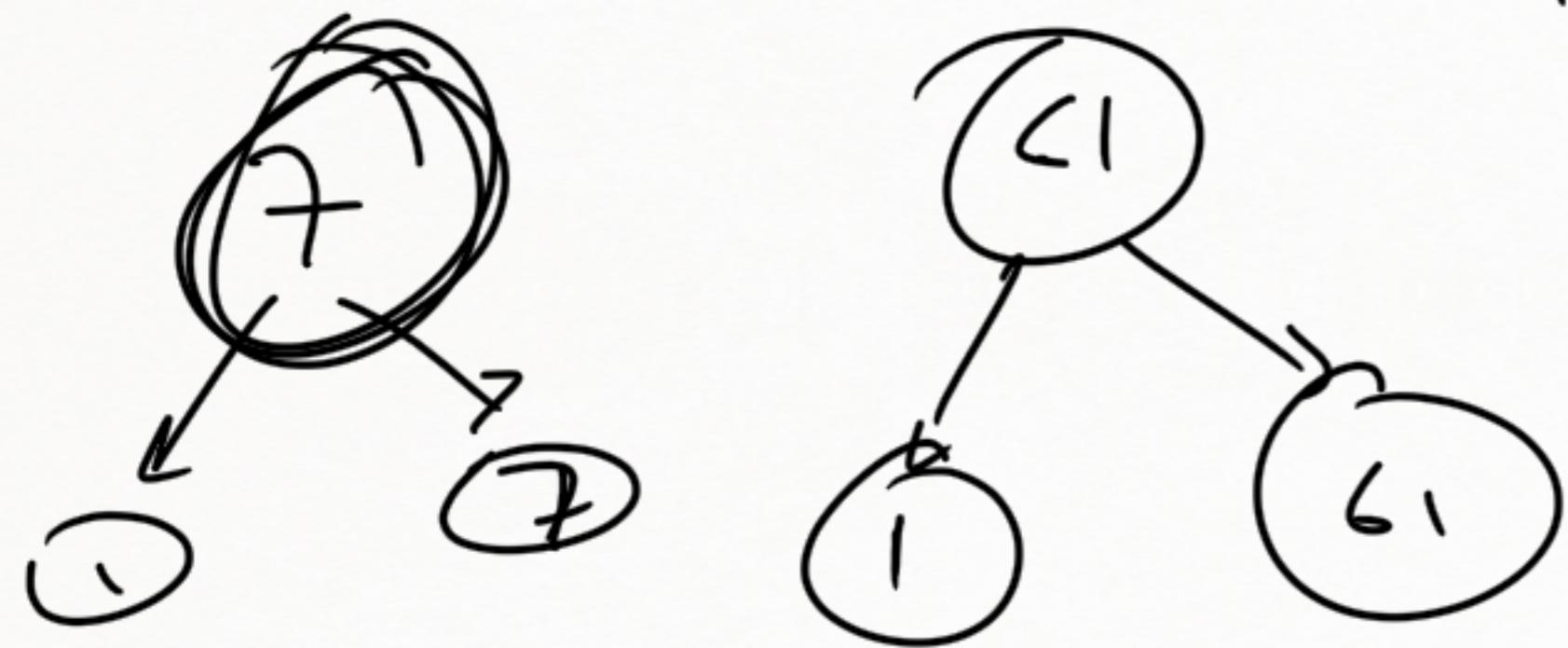


$[b_1, b_0, s_0, s_1, 4, 7, \dots]$

$b = \underline{\underline{s}}$



$\underline{\underline{1,05,781}}$

$\underline{\underline{e[0]}}$

Step 1 :- Divide and Conquer

Step 2 :- Ask yourself this question that - Is my brain is able to solve this smaller problem (Single element, half and one elements as well as the value of the element is also small)

Step 3 :- Whether your brain is trying to determine whether your number is prime or not, convert the whole process into steps -

Step 2 in detail :-

Dividend -

Divisor

②

7.1.2

if the remainder is
0 then the number is
not prime but if
it is $\neq 1$

7.1.3

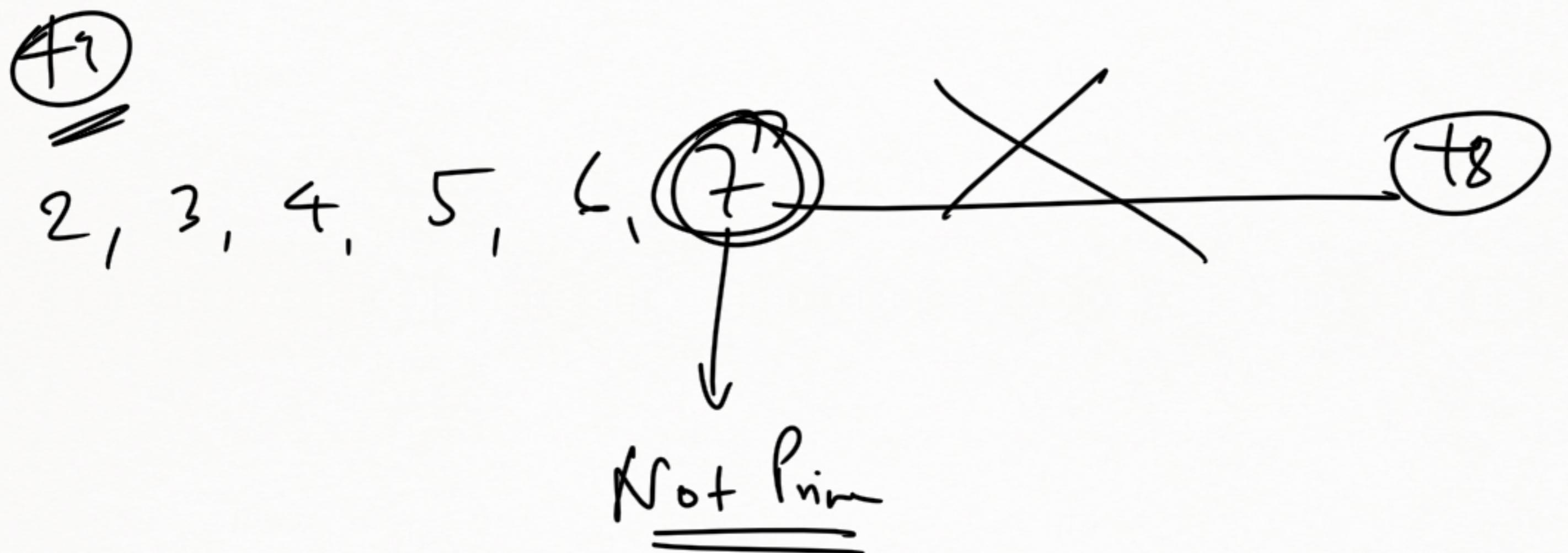
if the remainder is
0 then the number is
not prime but if it
is \neq

7.1.4

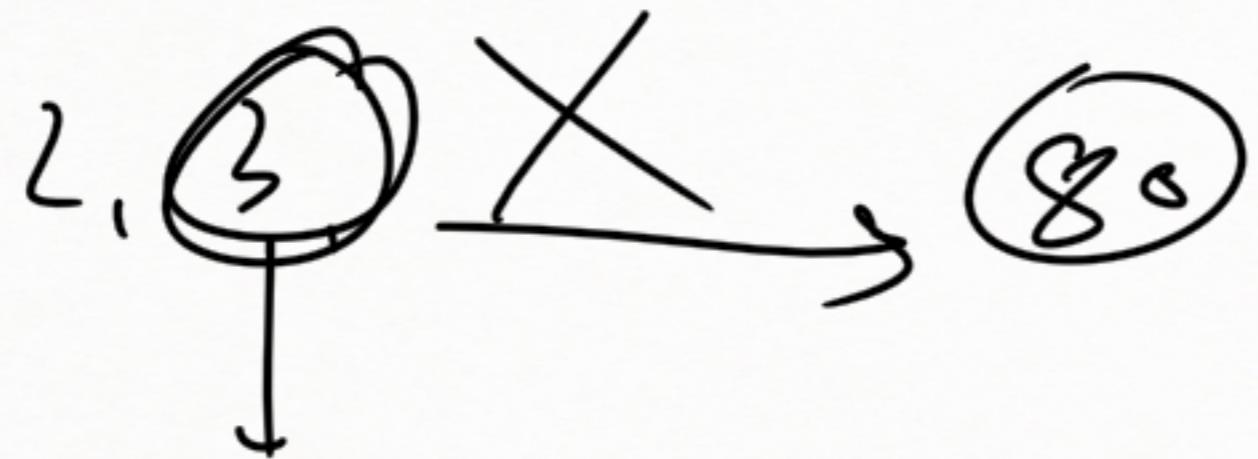
↓

7.1.5

13 = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12



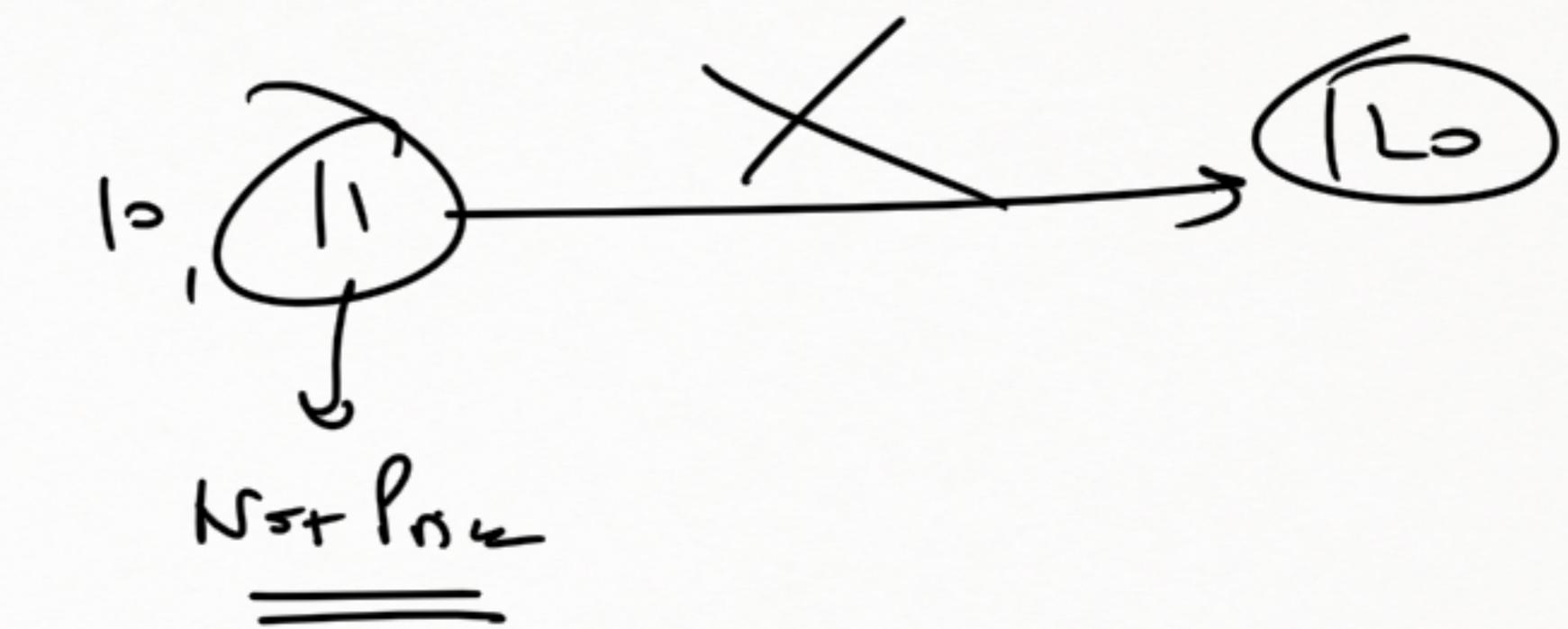
(81)



$$\underline{N \neq P_{ijm}}$$

(121)

2, 3, 4, 5, 6, 7, 8, 9



$$\underline{N \neq P_{nkm}}$$

(61)

2, 1, 4, 8, 16, 2, 8, ?, - - - - - . . .

(60)

divisor < number ← Not prime

$$\text{divisor} = \frac{(\text{number} - 1)}{2}$$

Start from 2 and go till $(\text{number}-1)$ and check whether the remainder of the number with divisor starting from 1 to $(\text{number}-1)$ becomes 0 at some point. If it gets 0 then don't go any further and declare that the number is not prime. but if the value of division remains $(\text{number}-1)$ then declare that the number is prime.

Step 3 :- $\underline{\underline{divisor = 2}}$, $\underline{\underline{end}} = \text{number} - 1$

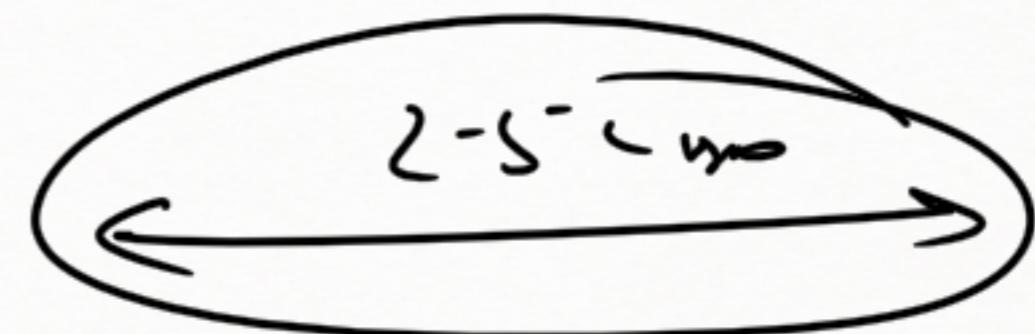
- ② Check if the divisor cancels the number or not. If it cancels then goto step ③ else goto Step ④
- ③ Decrease step. If the number is not prime then goto ⑦
- ④ Check if the value of divisor has reached end. If it has reached then decrease step. If the number is prime and goto step ⑦ else goto Step ①

The collection of steps can be called Algorithm.

(S) Increase the value of divisor by 1 -

(D) Go to step ②

(P) End of ALGORITHM



1 cm \rightarrow 9 cm

2.5 cm \times 9 cm

Step 4:- Now you have to convert your algorithm into
PSEUDO CODE.

① divisor = 2, end = (Number - 1)

② if number % divisor == 0 then go to step ③ else
 go to step ④

③ print ("Not prime")

④ Go to end of pseudocode

(5) if divisor == end then goto step (6)
else goto step (8)

(6) print ("Prime")

Go to end of pseudocode

divisor = divisor + 1

Go to step (2)

Steps:- Convert the PSEUDO CODE into code in
programming language of your choice.

Pass → Placeholder