1.4(O) - Loops and Nested Loops

Wednesday, August 27, 2025 8:03 PM

Q) Print all the even nos b/w [100-2]

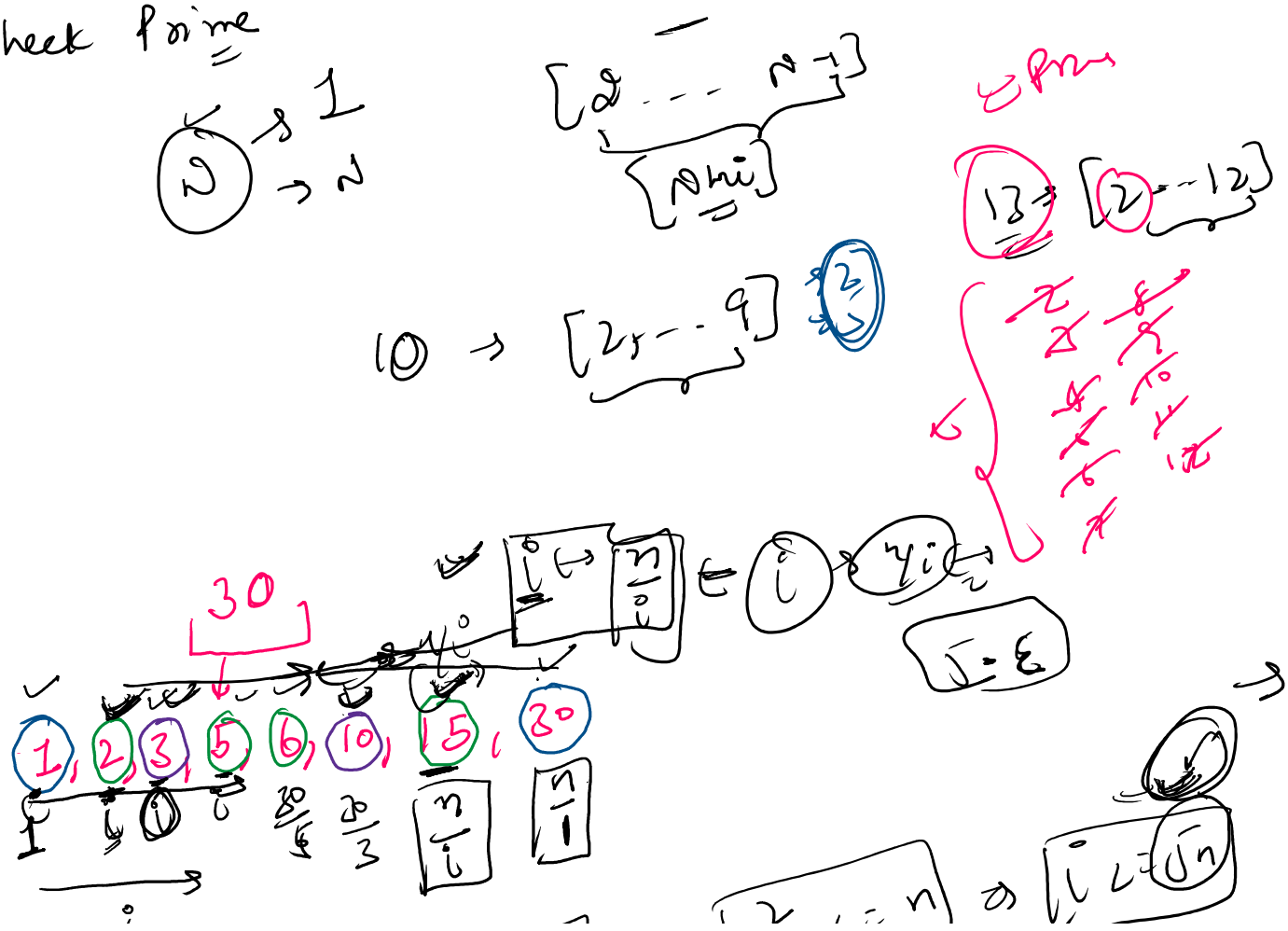
↳ 100, 98, 96 ..... 2.

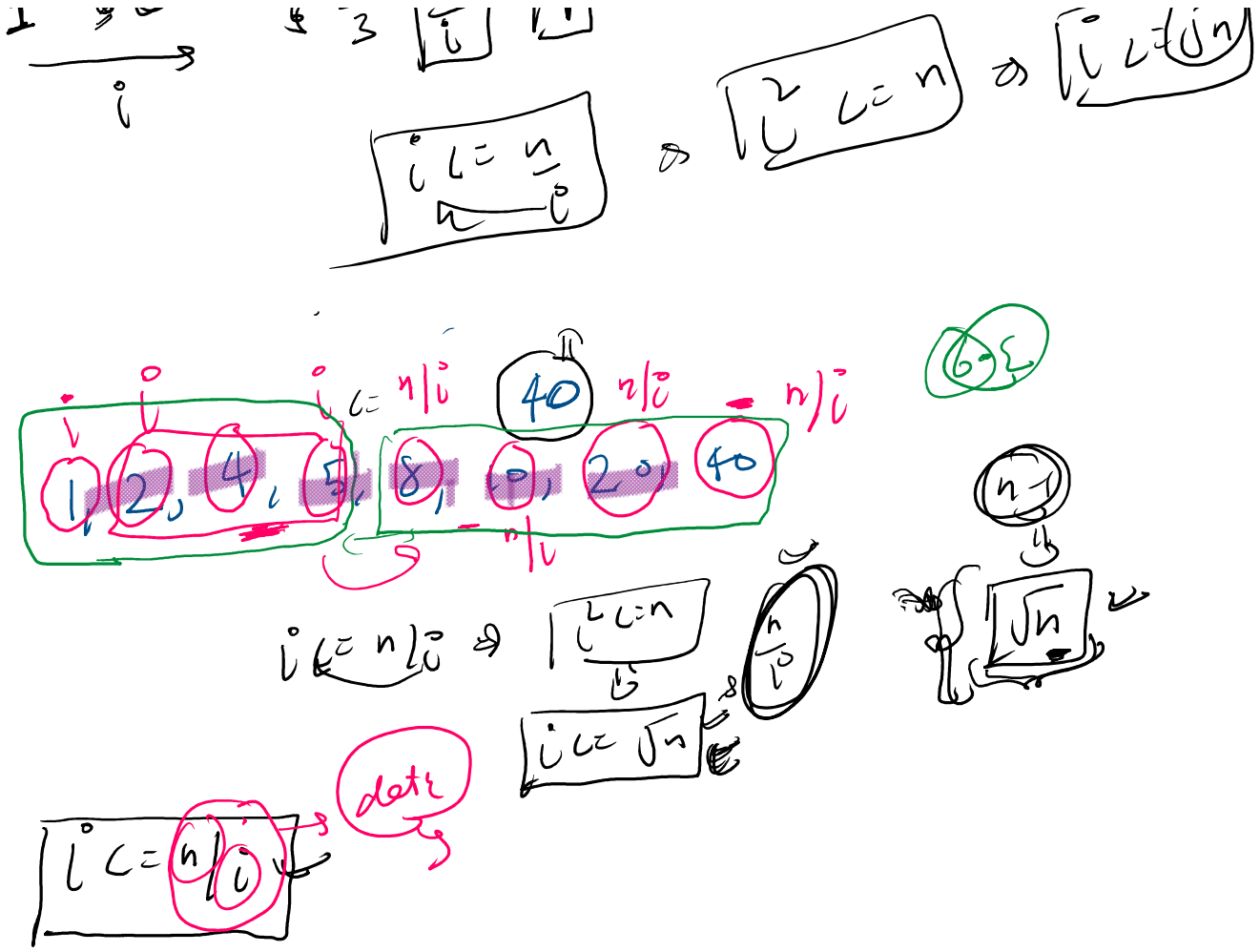
Q) a and b as input. Calculate a^b.

a=5
b=3

5³ = 125
5×5×5

Q) Check Prime





Important property of Modulo

$37\,8 \%\, 10 = 8$

$1254 \%\, 10 = 4$

$1254 \%\, 100 = 54$

$37\,8 \%\, 100 \Rightarrow 78$

$14\,7\,43 \%\, 100 \Rightarrow 43$

$10 + 37 = 47$

1473 %100 ⇒ 43

1473 %1000 ⇒ 743

abcdefg %1000 = defg

Imp property of division operator

10 < 37

378 / 10 ⇒ 37

1473 / 10 ⇒ 147

(A) =

abcd e / 10 ⇒ abcd

⇒ 378 / 1000 ⇒ 0

(A)

abcdefg / 1000

⇒ abc

Reverse the digs of a number

n = 12345 %

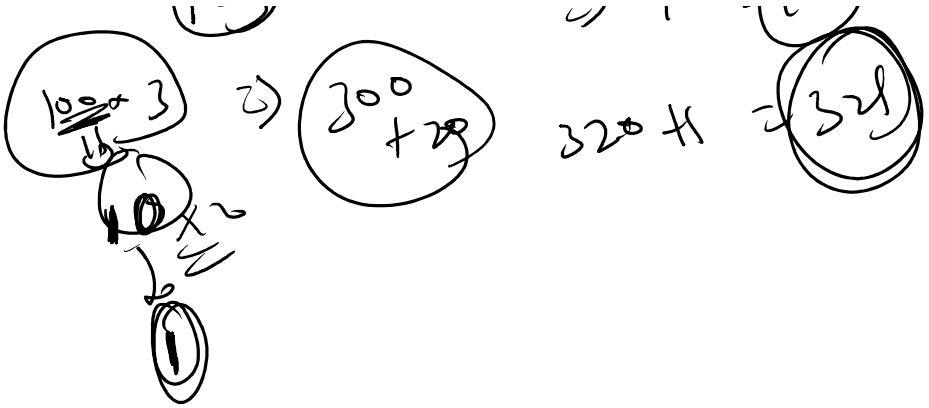
5 4 3 2 1

5

% ⇒ dig

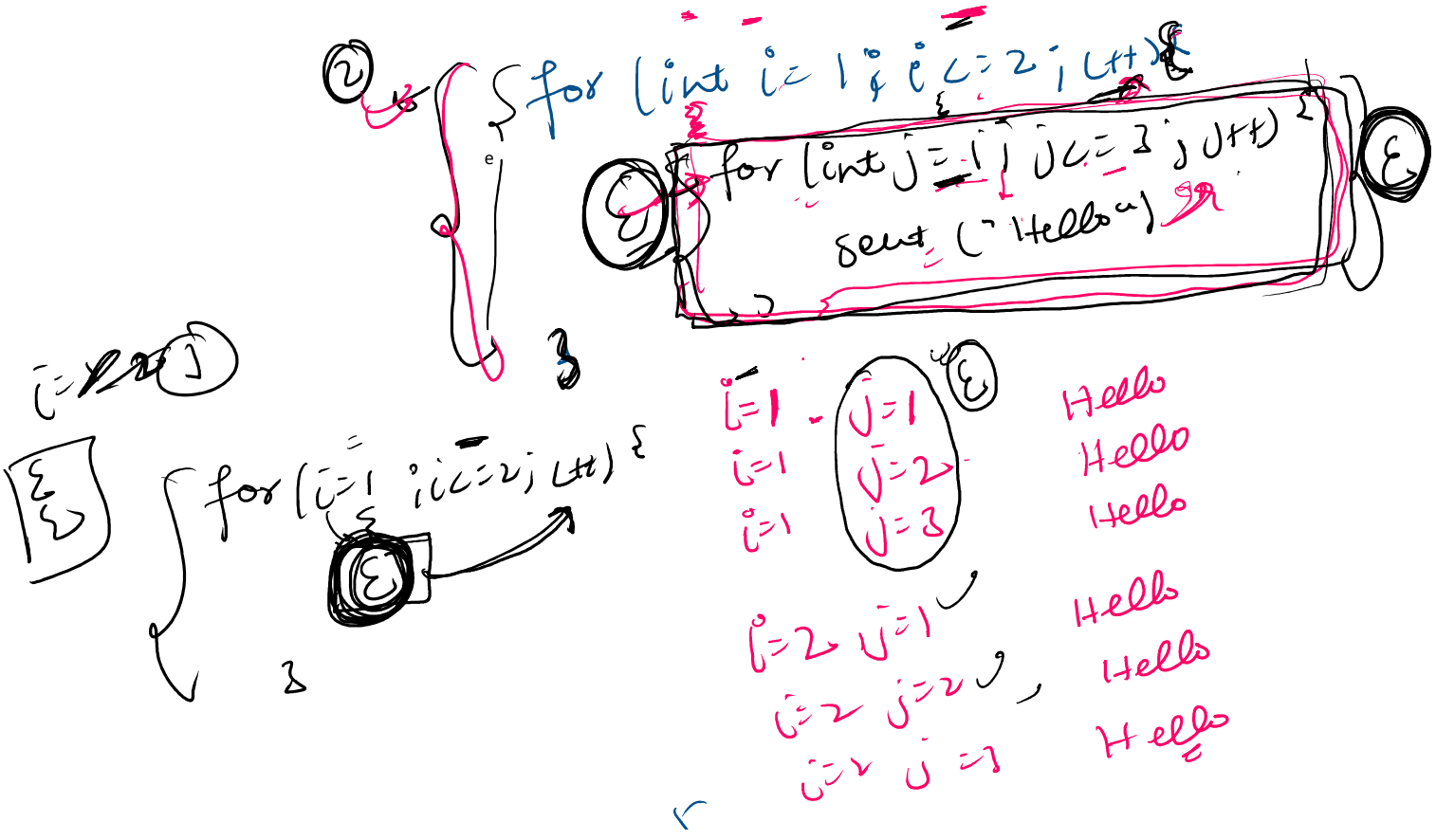
/ ⇒ 0 digs drops

12 ⇒ 3 ⇒ 10^31 = 100

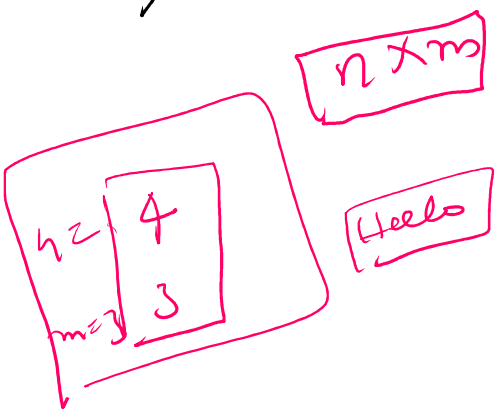


Nested loops → one or more loops nested inside the another loop-

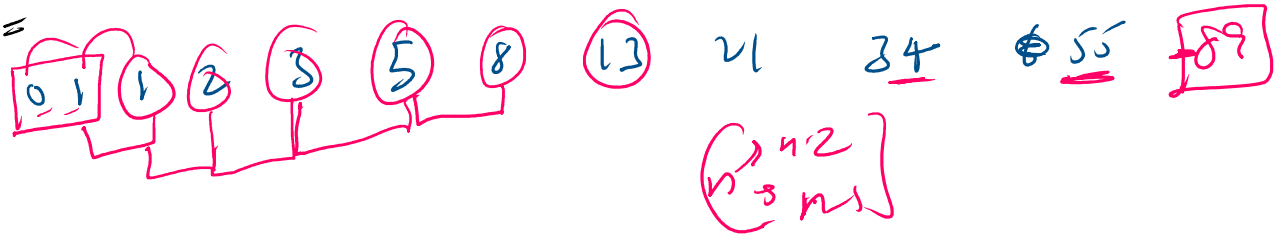
```
for( ) {
    for( ){
    }
}
```



```
for (i = 1; i <= n; i++) {
    for (j = i; j <= m; j++) {
        cout ("Hello")
    }
}
```

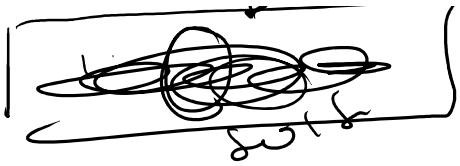


Fibonacci



Real life

```
for (i = 1; i <= n; i++) {
    [redacted]
```



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