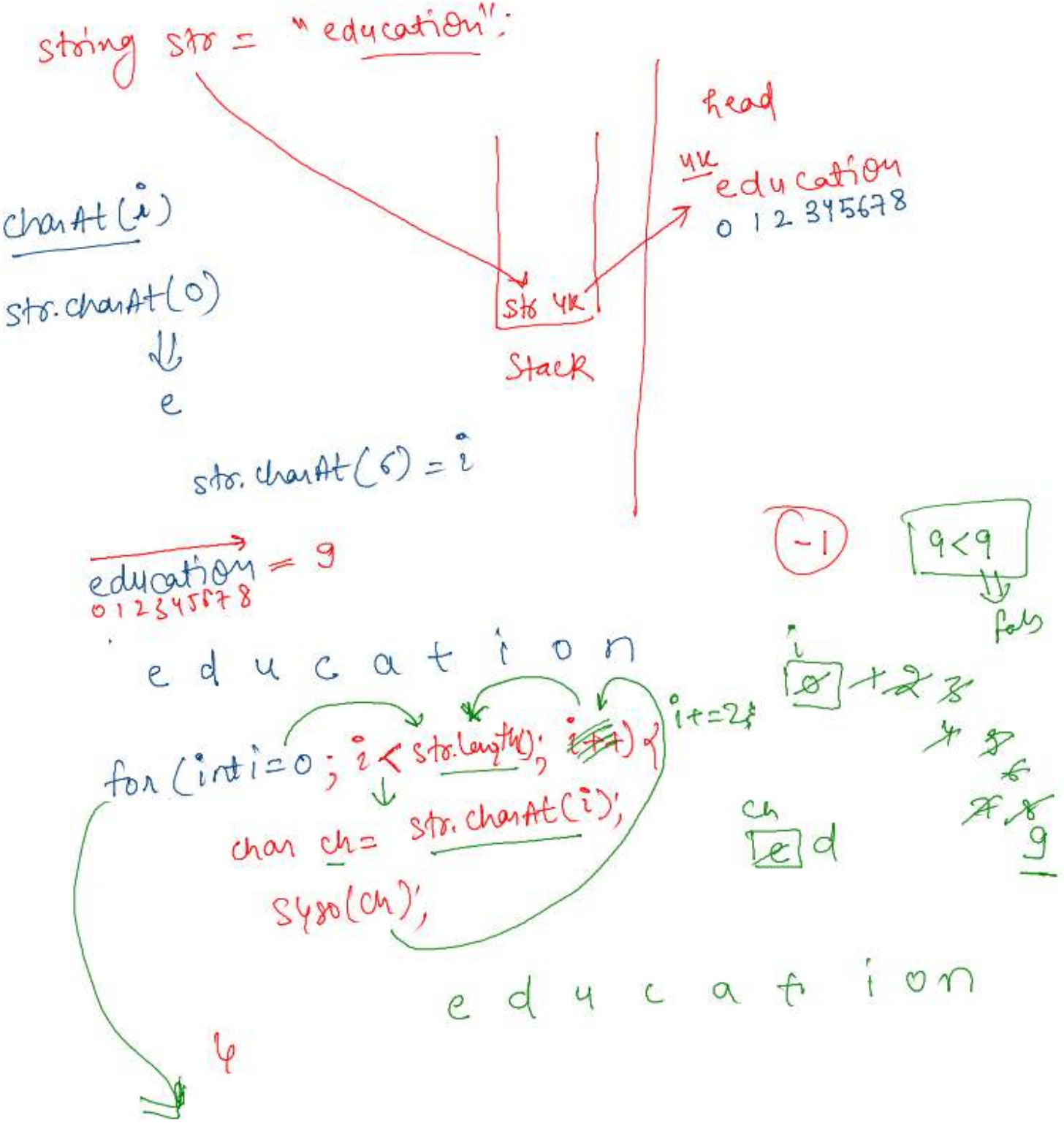
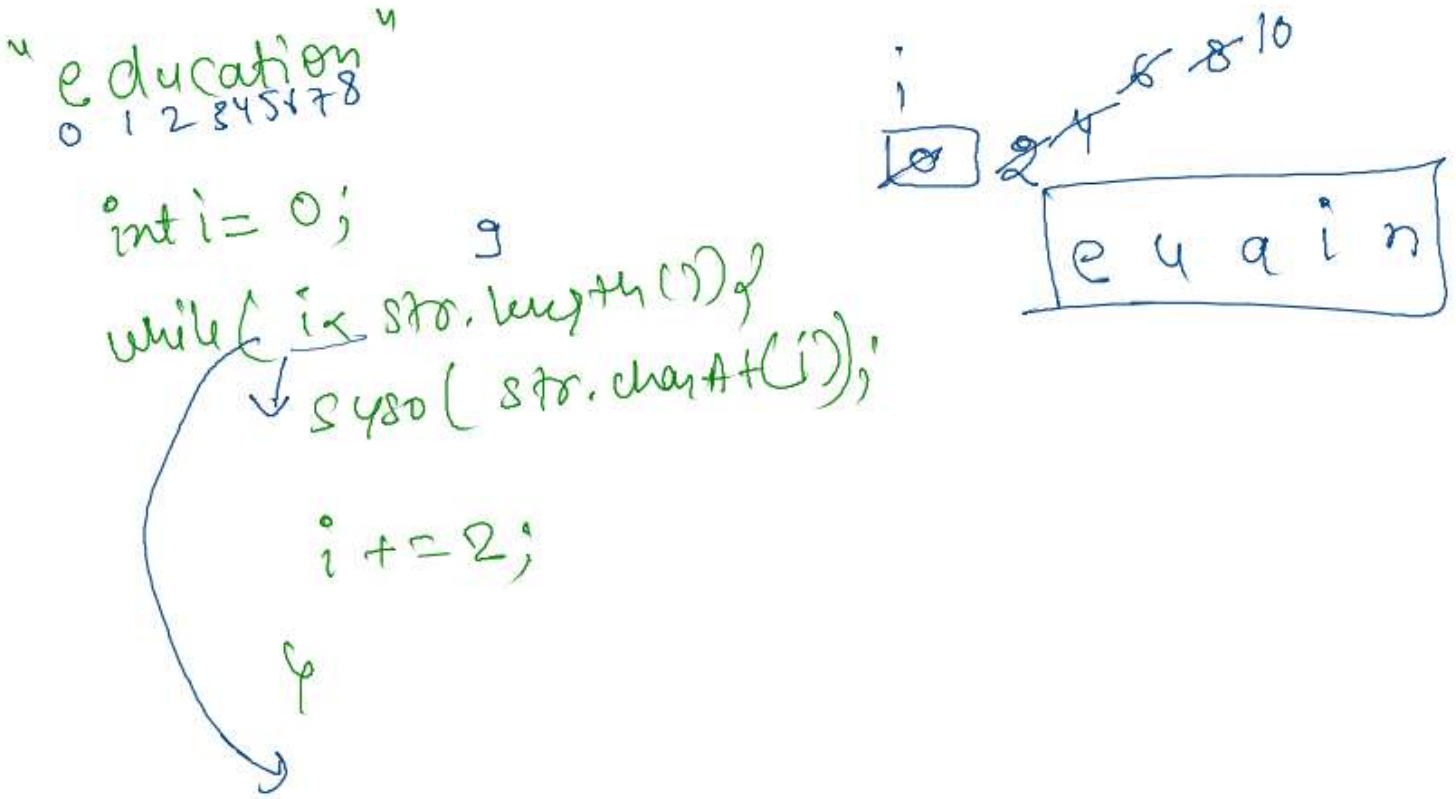

string str = "education";
Head
4K
education
0 1 2 3 4 5 6 7 8
charAt(i)
str.charAt(0)
e
Str 4K
Stack
str.charAt(5) = i
education = 9
0 1 2 3 4 5 6 7 8
-1
9<9
false
e d u c a t i o n
for (int i=0; i < str.length(); i++) {
i+=2
char ch = str.charAt(i);
Sysо(ch);
i
0 2 4 6 8
ch
e d
9
e d u c a t i o n
4

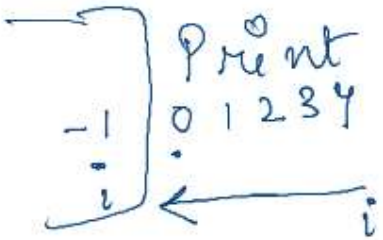



```java
public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        String str= scn.next();

        int i=0;

        while(i< str.length()){

            System.out.print(str.charAt(i));
            i+=2;
        }
        /* Enter your code here. Read input from STDIN. Print output to STDOUT. You
    }
}
```

Q Reverse the string

str = "Print"

ans = trinP



i--;

i = str.length()-1

while(i >= 0){

ans

i--;

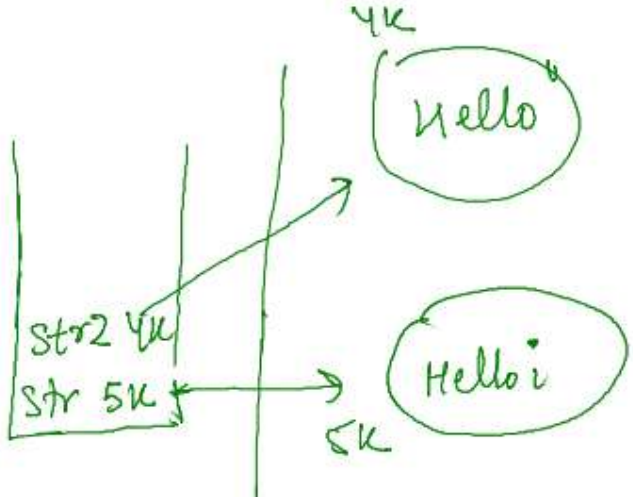
}

String is immutable

String str = "Hello";

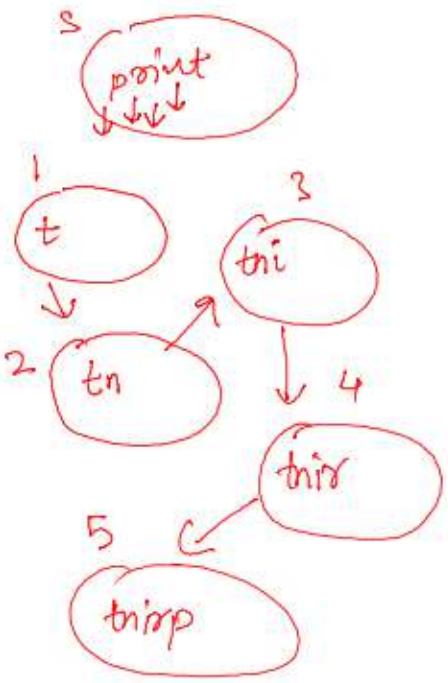
String str2 = "Hello";

str = str + "i";



s → print

```
String str =
while (i >= 0) {
    str = str + s.charAt(i);
    i--;
}
```



n^2

$1+2+3+4+5 \ldots\ldots n = \frac{n(n+1)}{2} \Rightarrow n^2$

String str1 = "Hello"

String str2 = "Hello"

String str3 = new String("Hello")

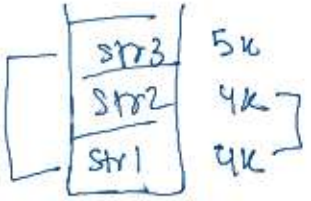
5k Hello

a (str1 == str2)

true ① compare the address

b (str1 == str3)

false



str1.equals(str2);

True

str1.equals(str3);

True

S1 (==) S2

⇓

it only checks the address of both strings S1, S2

T/F

- equals()

⇓

(1) first checks the address

(2) It will also check the content inside string.

Q. power of 2 to n

$n = 3$

$\Downarrow \quad 2^n = 2^3 \Longrightarrow$

$= 2 \times 2 \times 2$

$n = 8$

$\hookrightarrow 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \Rightarrow$

Q. power of 2 to n

$n = 3$

$2^n = 2^3 \Rightarrow$

$= 2 \times 2 \times 2$

$n = 8$

$\hookrightarrow 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \Rightarrow$

```
public static void main(String[] args) {
    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();

    int ans =1;
    int i=1;

    while(i<=n){
        ans = ans *2;
        i++;
    }

    System.out.print(ans);
    /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your c
}
```

n = 5

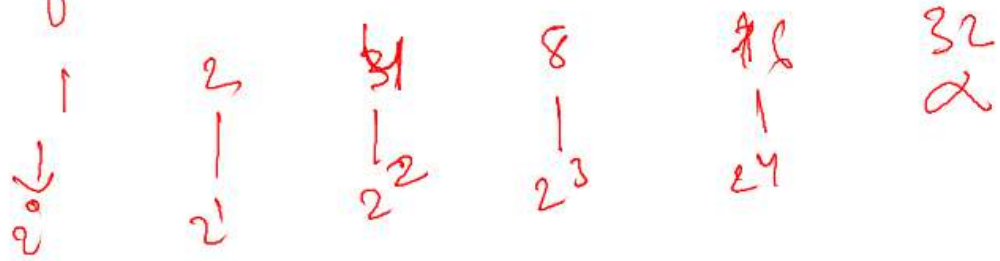
ans = 1 ~~2 4 8 16~~ 32

i = ~~1~~ 2 3 4 ~~5~~ 6

$5 <= 5$

Q n = 20

⇓ power of 2 till 20




```
public static void main(String[] args) {

    Scanner scn = new Scanner(System.in);
    int n = scn.nextInt();

    int ans =1;
    while(ans<n){
        System.out.print(ans+" ");
        ans *=2;
    }

    /* Enter your code here. Read input from STDIN. Print output to STDOUT.
}
```

n = 20

ans = 1 2 4 8 16 32

1 2 4 8 16

```java
public class Solution {

    public static void main(String[] args) {
        Scanner scn = new Scanner(System.in);
        int n = scn.nextInt();

        int i=3;
        while(i<=n){
            if(i%3==0 || i%5==0){
                System.out.print(i+" ");
            }
            i++;
        }
        /* Enter your code here. Read input from STDIN. Print output to STDOUT. Your class sho
    }
}
```