2) Matheratics :-

i) Trailing Zero's in a factorial :-

```
function trailingZero (n)
{
  let res = 0
  for (let i=5; i<=n; i=i*5)
    {
      res = res + n/i
    }
  return n
}
```

Logic

Trailing Zero's caused by 5

i.e; 30!

1 ... 5 ... 10 ... 15 ... 20 ... 25 ... 30

5 5x1 5x3 5x4 5x5 5x6

∴ There are 7 trailing zero's in 30.

i=5; $\frac{30}{5} \rightarrow 6$

Zero's = $0 + \frac{n}{5} + \frac{n}{25} + \frac{n}{125} + \dots$

i=25; $6 + \frac{30}{25} \rightarrow 7$

ii) Palindrome Number :-

```
Function palNumber (n)
{
  let res = 0,
      temp = n;
  while (temp != 0)
    {
    let lastDigit = temp % 10;
    res = (res * 10) + lastDigit;
    temp = ~N(temp/10);
    }
    return temp;
}.
```

(n) (rev)

125 → 521

To find last digit of n we write

lastDigit = n % 10 → 5

n = Math.floor (n/10) → 12

rev = 0 * 10 + lastDigit

= 5

[n = n/10 → int
temp = temp * 10 + lastDigit]