Brute force

Eg: dividend = 24 , divisor = 4

so $\overset{1}{4} + \overset{2}{4} + \overset{3}{4} + \overset{4}{4} + \overset{5}{4} + \overset{6}{4} = 24$

this can be written as

$24 - 4 = 20$ —— 1
$20 - 4 = 16$ —— 2
$16 - 4 = 12$ —— 3
$12 - 4 = 8$ —— 4
$8 - 4 = 4$ —— 5
$4 - 4 = 0$ —— 6

so totally 6 times

we can keep a counter and perform this

```
count = 0
while dividend - divisor >= 0
        count += 1
        dividend -= divisor
```

optimized → Power of 2

dividend = 24
divisor = 4

, what is the nearest power of 2 that can be used

2^0	2^1	2^2	2^3	2^4	2^5
1	2	4	8	16	32

$24 - 4 * 2^3 = 24 - 32$ → NO,
$24 - (4 * 2^2) = 24 - 16 = 8$ → yes

$8 - 4 * 2^2 = 8 - 16$ → NO
$8 - 4 \times 2^1 = 8 - 8 = 0$, - yes

so $= 2^2 + 2^1 =$
$4 + 2 = 6$