Zadatak „parno neparni"

2, 6, 4 parni ✓ ; 5, 3 neparni

2, 6 parni; 5 neparni; 4, 8 parni ✗

2, 8 ✓ ; 7, 3, 5 ✓

parni = false
neparni = false

2 → parni = true
4
6
7 → neparni = true
8 → if neparni → loše

np = true
5 ✓ 7 ✓ 3 ✓ 2 p = true

i
8 if neparni → „he"

p = false np = false
2 → p = true
6
3 → np = true
5
4 → if parni i neparni ✓ → „he"

2
4
6
7 → neparni = true
8
11
⋮

„Suma niza brojeva"

2, 2·3 = 6, 6·3 = 18, 18·3 = 54

2, 6, 18, 54

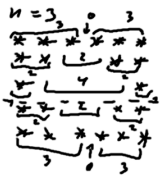
$2 + \underbrace{2\cdot 2 + 2\cdot 2^2 + 2\cdot 2^3 + \dots + 2\cdot 2^{n-1}}_{(2\cdot 2)\cdot 2}$ (n)

broj = 2
broj = 2·2
broj = 2·2·2

n = 4
a = 2
2 = 3

zbir = 0
broj = a
n = 4
while (n > 0)
  zbir += broj
  broj *= 2
  n--;

„Cilim od zvezdica"



3* 0p 3*
2* 2p 2*
1* 4p 1*
2* 2p 2*
3* 0p 3*

prva petlja; druga petlja

nakon prve petlje:
broj_zvezdica = 0
broj_praznih = 2·n+2

int a = 0
while (a < 4) write(a) a++
ponovi 4 puta

0
1
2
3

broj_zvezdica = 2
broj_praznih -= 4

FOR(int a=0; a<4; a++) write(a)

0
1
2
3

Bonus zadatak

- unosi se n
- zatim n-1 brojeva, svi različiti, svi ≤ n

6
4
5
1
2
3 → fali 6

1, 2, X, 4, 5, 6, 2
n = 6

Primetimo:

za niz 1, 2, 3, 4, 5 suma = 15
za niz 1 3, 4, 5 suma = 13
za niz 1, 2, 3, , 5 suma = 11

2 ↑ 4 ↓ => treba sabrati sve i oduzeti to od sume 1+2+3+...+n

Hoćemo da nađemo sumu:

1+2+3+....+n

$\frac{(n+1)n}{2}$

1+2+3+4+5+6 = 7·3 = 21 ($\frac{n}{2}$, n+1 (ovde n=6))

$(n+1)\cdot\frac{n-1}{2} + \frac{n+1}{2}$

n=2: 2+1 ; n=7: $\frac{7-1}{2}=3$; $\frac{7+1}{2}=4$

$(n+1)\cdot\frac{n-1}{2} + \frac{n+1}{2}$
$= (n+1)\left(\frac{n-1}{2} + \frac{1}{2}\right)$
$= (n+1)\,\frac{n}{2}$

Formula: $S_n = \frac{n\cdot(n+1)}{2}$

n = 5 1+2+3+4+5 = 15

$\frac{n\cdot(n-1)}{2} = \frac{5\cdot 4}{2} = 10$ 1+2+3+4 = 10

$\frac{n\cdot(n+1)}{2} = 15$

Rešenje:

```
suma_unetih = 0
FOR(int i=0; i<n; i++)
  int broj = convert(rezd...)
  suma_unetih += broj
int x = n·(n+1)/2 - suma_unetih
```