$\underline{K = 100}$ ✓ : Atmost $\boxed{\underline{100 \text{ notes}}}$

$\boxed{1, 100}$

↑

1×99 ⎫
100×1 ⎬ → $\boxed{99}$ ← $\quad$ 1 100 taka note $\quad$ 99 1 taka note

$\boxed{0 - 198}$ ↗ $\qquad$ $\boxed{100 - 198}$ ↗ $\qquad$ 100 taka
$\qquad\qquad\qquad\qquad\qquad$ $0 - 98$ →

Minimum Coin Change

$3 \quad → \boxed{255} \longrightarrow$ Total Notes
$\qquad\qquad\qquad$ ↑
$\boxed{109}$ ✗ $\quad \underset{\downarrow}{0} \qquad \underset{\downarrow}{1} \qquad \underset{\downarrow}{3} \qquad 255 - 108 = \boxed{147}$
$\qquad\quad \underline{\underline{1}} \qquad \underline{\underline{10}} \qquad \underline{\underline{1000}}$ ✓

⎧ $\underline{\underline{9}}$ notes of taka $\underline{1} \quad = 9$ TK ⎫ $\underline{999}$
⎨ 99 notes of taka $\underline{10} \quad = 990$ TK ⎬
⎩ $\underline{\underline{148}}$ notes of taka $1000 = 148000$
$\qquad\qquad\qquad\qquad 147999 \longrightarrow \boxed{255}$ ✓ $\quad \boxed{148000}$

$\boxed{log}$ ✓

$\boxed{108}$
$\begin{bmatrix} \underline{9} \\ \underline{99} \\ \underline{1} \end{bmatrix}$
Notes of taka $\underline{1}$ = 9
notes of taka $\underline{10}$ = 990
note of taka 1000 = 1000

$\boxed{1909}$

✓

$\boxed{1999}$

middle   Top Sort
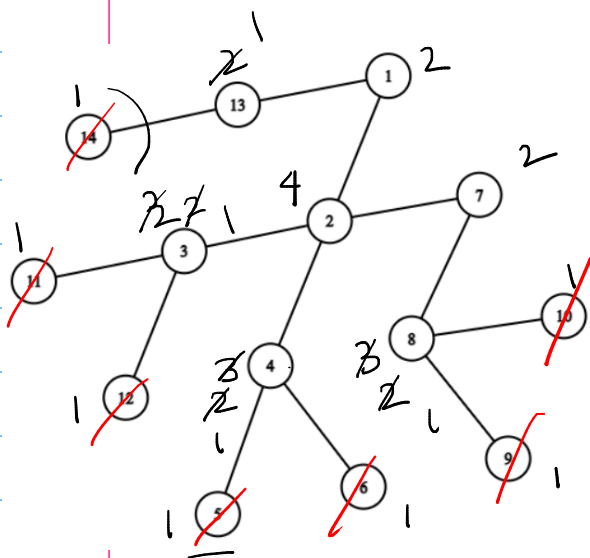
101

105

201

202

[Topological
  sort]

101, 105, 201, 202
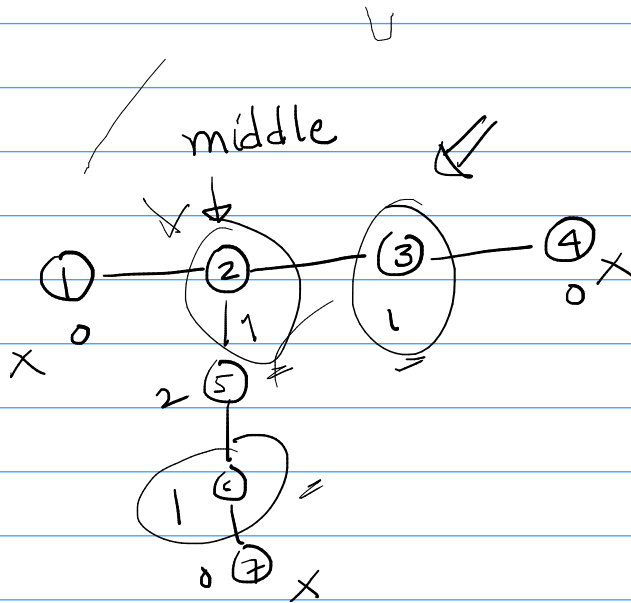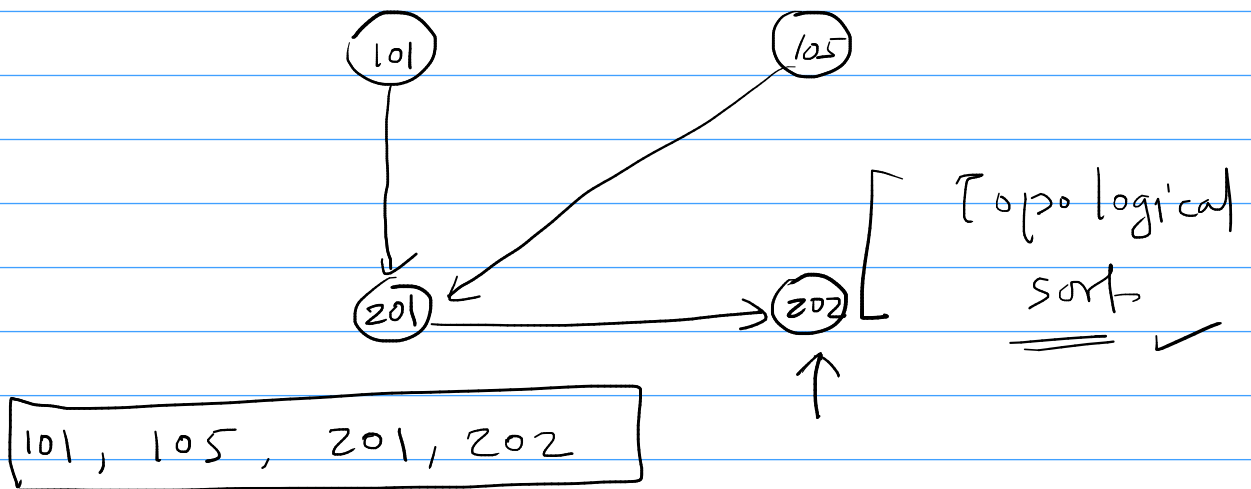
sudo apt-get install neofetch

4, 0, 5, 1, 2, 3   Topological sort

Degree → no. of edges

[5, 6, 9, 10, 11, 12, 14]

→ updates = [4, 8, 3, 13]

[4, 8, 3, 13]

updates = [   ]

$$0 \quad 9$$
$$\underline{9 \quad 6}$$
$$1 \quad 0 \quad 5$$

$$2 \quad 3$$
$$\underline{2 \quad 7}$$
$$5 \quad 0$$

$$\boxed{1 5 0 5 0}$$

$$2 \quad \overset{=}{0} \quad \underset{=}{2} \quad \overset{=}{1}$$

$$2 \quad 2$$
$$\underline{}$$
$$\uparrow$$
$$\boxed{23}$$

$$\overset{=}{0} \quad 1$$
$$\underline{}$$
$$\uparrow$$
$$②$$

(00) (2 2)
01, 21
02, 20

(00) 01
0 1, (00)

(22, 00)

$$\boxed{23 \times 2} = \boxed{46}$$

positive $\curvearrowright$ $\begin{bmatrix} 0 & 0 & 0 & 0 \\ 2 & 0 & 2 & 1 \end{bmatrix}$ $\leftarrow$ valid

$$\begin{matrix} 2 & 0 & 2 & 1 \\ 0 & 0 & 0 & 0 \end{matrix} \Bigg] \leftarrow \text{invalid}$$

$$\underline{46 - 2} = \underline{44}$$

$$\rightarrow \overset{1}{\underset{}{2 0 2 0}}$$
$$\overline{2 0 2 1}$$

$$\boxed{\underline{\underline{1} \quad 0 \quad \underline{\underline{0}} \quad 0 \quad \underline{\underline{0}}}}$$

$$\underline{\underline{1 \ 0 \ 0}}$$

$$\boxed{0 \quad 0}$$
$$\downarrow$$
$$1$$

$$\underline{\underline{1 \ 0 \ 1}}$$

$$\underline{101 \times 1} \quad - \quad 2 \quad = \boxed{99}$$

$$10$$
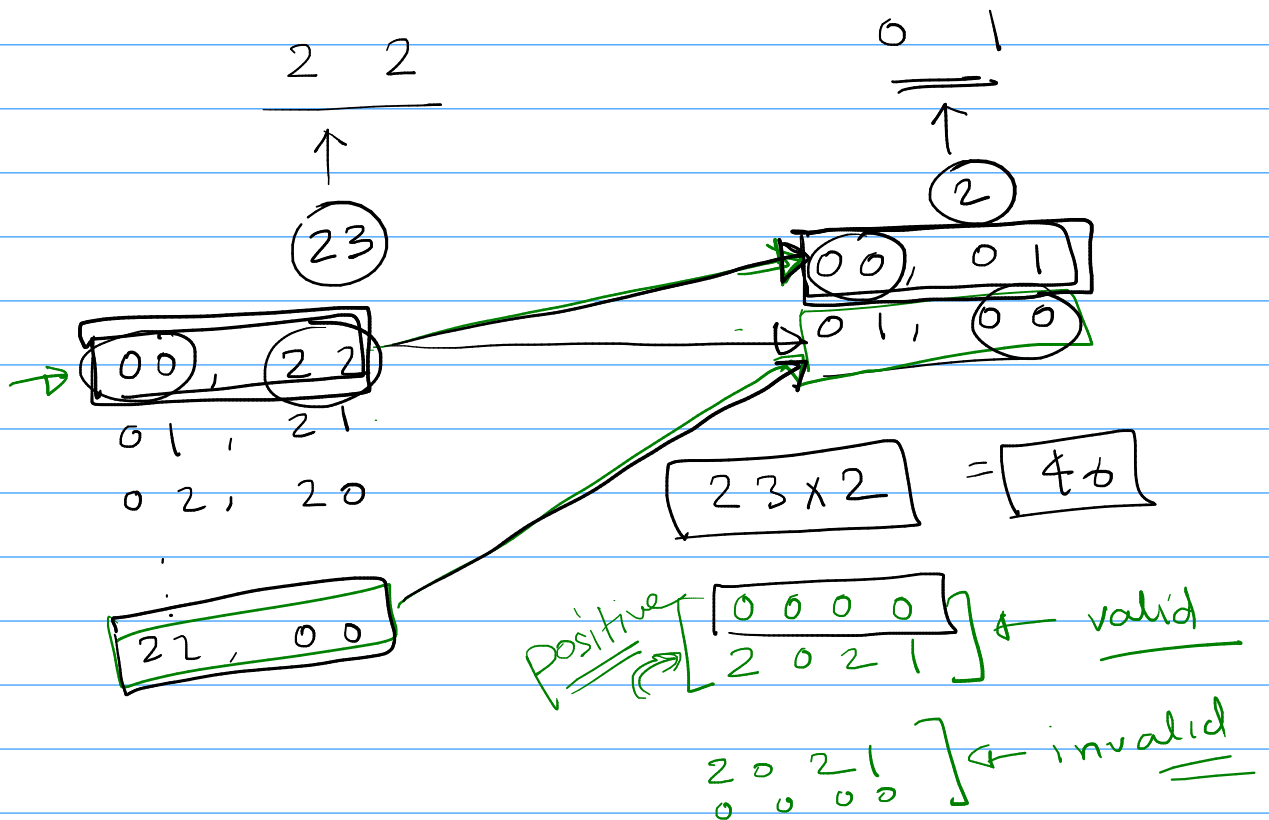
	1			
$\rightarrow$ 1:	6	6	(3, 1)	(4, -1)
$\rightarrow$ 2:	5	5	(5, 1)	(6, -1)
$\nearrow$ 3:	6	6	(6, 1) (6, 1) (6, 1)
4:	10	10	(7, -1) (7, -1) (7, -1)
$\rightarrow$ 5:	7	7	(7, 1) (8, -1)
6:	10	10	(8, 1) (9, -1)
$\rightarrow$ 7:	6	6	(9, 1) (10, -1)
8:	8	8	(10, 1) (10, 1) (11, -1) (11, -1)
$\rightarrow$ 9:	3	3	$\rightarrow \underline{\underline{1}} \times$
10:	9	9	

Input:
5 ③
2 4 7 3 5

sum = ~~4~~ 3

| 2 | 4 | 7 | 3 | 5 |

sum = 8

div = section = ③

Concrete math ✓

$(x+y+z)^9$

$\Rightarrow x^i y^j z^k$

$i + j + k = 9$

3 0
2 1
1 2
0 3

$(x+y)^3 = x^3 + 3x^2y + 3xy^2 + y^3$

= 4 terms

stars and bars ✓

$*$ $*$ R $*$ $*$ G $*$ $*$ $*$ $*$ $*$

2 + 2 + 5

1 + 1 + 7

S

$\boxed{0 + 9}$ ✓

S ⑩ × 11 = 55

2

0   1   2   3   9
↓   ↓   ↓   ↓   ↓
10 9   8   7   1

$\frac{10 \cdot 11}{2} = 55$ ✓

N stars   3 Bars $\rightarrow N! \cdot (N+1)(N+2)(N+3)$

$\boxed{\dfrac{(N+K)!}{N! \, K!}} \rightarrow$ $= \dfrac{(N+3)! \, N!, 3!}{3! \, N!}$

$$n > m$$

zeros   ones

$k \longrightarrow \boxed{n, m}$

$\underbrace{0000 \cdots\cdots 0}_{k \ zeros} \Big\| 1010101010 \cdots\cdots 10 \underbrace{0000 00}\checkmark$

$\boxed{\bigodot{n - m} + 1 > k} \quad \longleftarrow \quad impossible$

$0\ 0\ 0\ 0\ 0\ 0\ |\ 0\ 1\ 0\ 1\ 0\ 1\ 0\ 1\ 0 \ \underline{\qquad\qquad}$