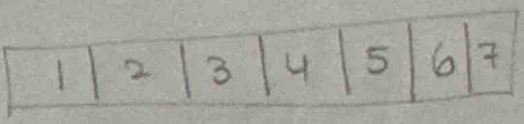
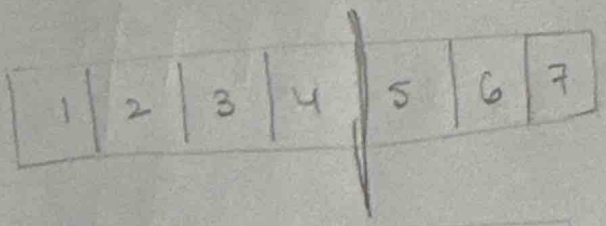
Consider = 1 3 4 5

Stick len = 7 :



Intitial cut at 4

Stick len = (7)

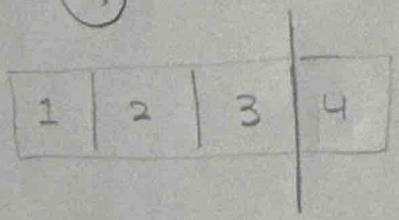


Left partition = 1 2 3 4

right partition = 5 6 7

cut at 3

Stick len = (4)

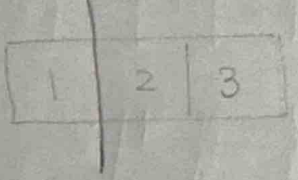


Left partition = 1 2 3

right partition = 4

cut at 1

Stick len = (3)

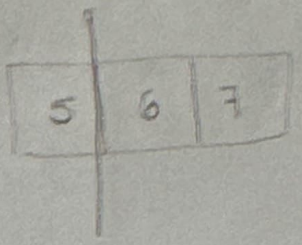


Left partition = 1

right partition = 2 3

Cut at 5

Stick len : 3



Left = 5

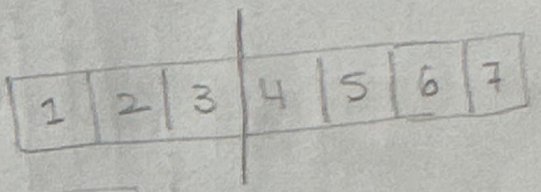
right = 6 7

Total cost = 7 + 4 + 3 + 3 = 17

Option 2: What if we start the cut at 3

Initial cut at 3

Stick len = (7)

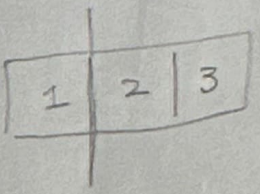


Left partition = 1 2 3

right partition = 4 5 6 7

cut at 1

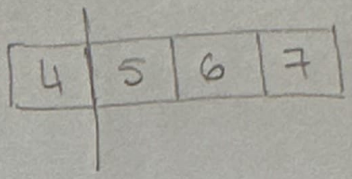
Stick len = (3)



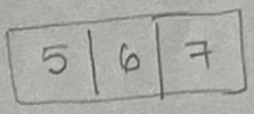
Left partition = 1

right partition = 2 3

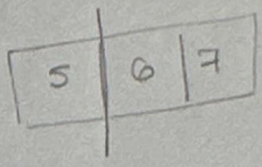
Cut at 4

Stick len = (4) = 

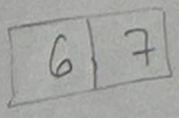
Left partition = 4

right partition = 

Cut at 5

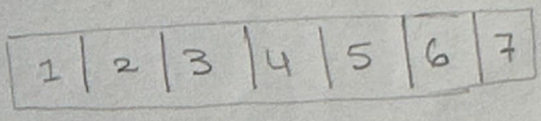
Stick len = 3 

Left = 5

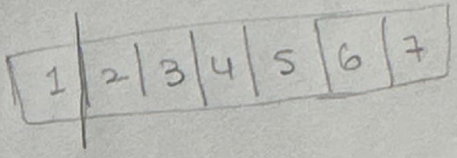
right = 

Total cost = 7 + 3 + 4 + 3 = 17

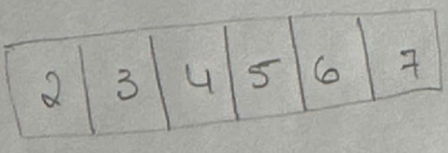
Option 3 → we start cut at 1

Stick len = 7 

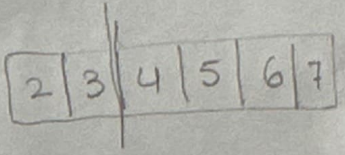
Cut at 1

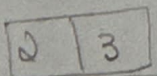
Stick len = (7) 

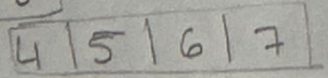
Left = 1

right = 

Cut at 3

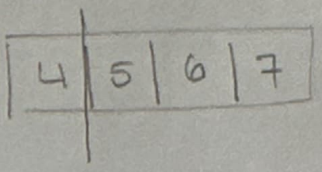
Stick len = 6 

Left = 

right = 

Cut at 4

Stick len = (4)

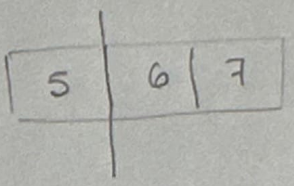


Left = 4

right = 5 | 6 | 7

Cut at 5

Stick len = 3



Lyt = 5

right = 6 | 7

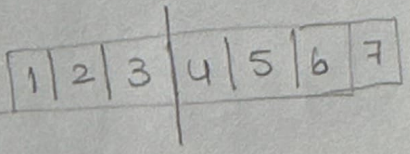
Total cost = 7 + 6 + 4 + 3 = 20

#Option 4 [3, 5, 1, 4]

Intial Stick len = 1 | 2 | 3 | 4 | 5 | 6 | 7

cut at 3

Stick len = (7) →

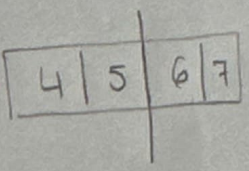


Left = 1 | 2 | 3

right = 4 | 5 | 6 | 7

Cut at 5

Stick = (4) →

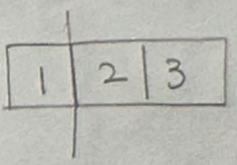


Left = 4 | 5

right = 6, 7

cut 1

Stick = (3) →



Left = 1

right = 2 | 3

cut 4

Stick = 4 | 5 = (2)

Lyt = 4

right = 5

#

Total = 7 + 4 + 3 + 2

= (16)

This is the Minimum