

min, max

165  
10  
82

(30, 20) 582  
110

[5, 10, 30, 20, 15]

k=3

low = 30, 20 =  $\frac{110}{2} = 55$

low = 30

high = 20 mid =  $\frac{110}{2} = 55$

ans <= k

5, 10, 30, 20, 15

(30, 54)

$\frac{84}{2} = 42$

(ans <= k)

low = mid - 1;

5, 10, 30, 20, 15

k=3 (30, 54)

ans > k

high = mid + 1;

high(res)

low(res)

ans >= k

1, 1, 2, 2, 3, 3, 4, 4, 5, 5

low = mid + 1

→

ans < 3

~~low = mid;~~

high = mid - 1;

ans <= k

high = mid - 1;

mid

low + (low + high)

low + (high - low)  
2