

⑧ Difference of 2 arrays.

$n_1, arr1[n_1]$  find  $arr1 - arr2$   
 $n_2, arr2[n_2]$  ASSUME  $arr2$  is always larger  
 CODE

```
int[] ans = new int[n2]; int diff = n2 - n1, borrow = 0;
for (int i = n2 - 1; i >= 0; i--) {
    if (i - diff > 0) ans[i] = arr2[i] - arr1[i - diff] - borrow;
    else ans[i] = arr2[i] - borrow;
    if (ans[i] < 0) { borrow = 1; ans[i] += 10; }
    else borrow = 0;
}
int i = 0;
while (arr[i] == 0) i++;
for (; i < n2; i++)
    System.out.println(ans[i]);
```

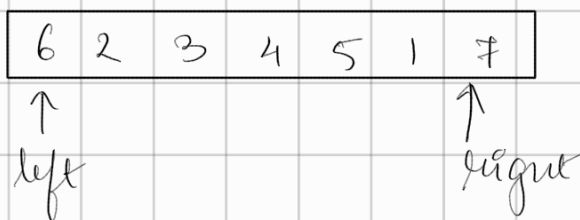
Number System MCQ.

$$(542)_{10} = (?)_8 \quad (634)_8 = (?)_{10}$$

$$\begin{array}{r} 8 \overline{) 542} 6 \\ \underline{8 \times 67} 3 \\ \underline{8 \times 0} \\ 1 \end{array} \rightarrow (1036, 412)$$

$$4 \times 8^0 + 3 \times 8^1 + 6 \times 8^2 = 412$$

⑨ Reverse an array



```
int left = 0, right = n - 1;
while (left < right) {
    int temp = arr[left];
    arr[left] = arr[right];
    arr[right] = temp;
    left++;
    right--;
}
```

③ Rotate an array.

→ for  $k$  rotations

① if  $(k > n)$   $k \% n = n;$

② if  $(k < 0)$   $k = (k \% n) + n;$

③ reverse  $(arr, 0, k-1);$   
reverse  $(arr, k, n-1);$   
reverse  $(arr, 0, n-1);$

④ Inverse of an array

for  $i$  from  $0$  to  $n-1$ , by  $1$

ans  $[arr[i]] = i;$

