**1.**

**public** **class** Leader {

**public** **static** **void** leaderArray(**int**[] arr) {

**int** leader = arr[0];

**int** index = 0;

**for**(**int** i = 0; i < arr.length; i++)

{

**if**(arr[i] >= leader) {

leader = arr[i];

index = i;

}

}

**for**(**int** i = index; i < arr.length; i++)

{

System.***out***.print(arr[i]+" ");

}

}

**public** **static** **void** main(String[] args) {

**int** arr[] = {7,10,4,10,6,5,2};

*leaderArray*(arr);

}

}

**2.**

**public** **class** Stock {

**private** **static** **void** findBestDayToBuy(**int**[] prices) {

**int** min = prices[0];

**int** index = 0;

**for**(**int** i = 0; i < prices.length; i++)

{

**if**(prices[i] < min) {

min = prices[i];

index = i;

}

}

**int** max = prices[index];

**for**(**int** i = index; i < prices.length; i++)

{

**if**(prices[i] > max) {

max = prices[i];

}

}

**int** profit = max-min;

System.***out***.println(profit);

}

**public** **static** **void** main(String[] args) {

**int** prices1[] = {7,1,5,3,6,4};

**int** prices2[] = {7,6,4,3,1};

*findBestDayToBuy*(prices1);

*findBestDayToBuy*(prices2);

}

}

**3.**

**public** **class** Xor {

**static** **int** rec(**int** i, **int** x, **int** nums[], **int** size) {

**if** (i == size)

**return** x;

**int** choice1 = *rec*(i + 1, x ^ nums[i], nums, size);

**int** choice2 = *rec*(i + 1, x, nums, size);

**return** choice1 + choice2;

}

**static** **int** xorSum(**int** nums[], **int** size){

**return** *rec*(0, 0, nums, size);

}

**public** **static** **void** main(String[] args) {

**int** nums1[] = { 1, 3};

**int** size1 = nums1.length;

System.***out***.println(*xorSum*(nums1, size1));

**int** nums2[] = { 5, 1, 6};

**int** size2 = nums2.length;

System.***out***.println(*xorSum*(nums2, size2));

}

}