

19. Given an array of integers nums, half of the integers in nums are odd, and the other half are even. Sort the array so that whenever nums[i] is odd, i is odd, and whenever nums[i] is even, i is even. Return any answer array that satisfies this condition.

Program:

```
def sort(nums):  
    n = len(nums)  
    result = [0] * n  
    odd, even = 1, 0  
  
    for num in nums:  
        if num % 2 == 0:  
            result[even] = num  
            even += 2  
        else:  
            result[odd] = num  
            odd += 2  
  
    return result
```

Output:

