

Chapter 8 programming

8.21:

```

the numbers that add up to 10 are: 1, 9
the numbers that add up to 10 are: 2, 8
the numbers that add up to 10 are: 3, 7
the numbers that add up to 10 are: 4, 6
the numbers that add up to 10 are: 5, 5
the numbers that add up to 10 are: 6, 4
the numbers that add up to 10 are: 7, 3
the numbers that add up to 10 are: 8, 2
a) the numbers that add up to 10 are: 9, 1

```

b)

```

the numbers that add up to 10 are: 1, 9
the numbers that add up to 10 are: 2, 8
the numbers that add up to 10 are: 3, 7
the numbers that add up to 10 are: 4, 6

```

c)

```

the second one is faster with run time of  $N \log N$ 

```

8.27:

```

number of duplicates: 5

number of duplicates: 4

```

```
Integer[] arr2 = {1, 1, 3, 4, 4, 6, 7, 7, 7, 7};
```

```
Integer[] arr3 = {7, 1, 1, 7, 4, 6, 7, 7, 7, 7, 1};
```

8.33:

```
Are i-n-c-h and c-h-i-n anagrams  
true
```

```
Are t-a-r and r-a-t anagrams  
true
```

```
Are c-a-r and a-r-c anagrams  
true
```

```
Are e-l-b-o-w and b-e-l-o-w anagrams  
true
```

```
Are n-i-g-h-t and t-h-i-n-g anagrams  
true
```

```
Are d-u-s-t-y and s-t-u-d-y anagrams  
true
```

I tried using `.split` but the only way I could do it is by putting `-` between each letter in the word to split it into the array.