

Array Trace

Trace the following part of a program when acting on the given array, and indicate briefly what it does (not how it does it).

Would you package this method as a function or a routine? Why?

```
-- Array Trace
Boxes i, j, k, temp ofType int
Box A ofType int[]
```

```
NewArray A ofType int[5]
```

```
Set A[0] = 1
```

```
Set A[1] = 9
```

```
Set A[2] = 6
```

```
Set A[3] = 8
```

```
Set A[4] = 3
```

A[0] =	1	<u>3</u>	3	3	3	<u>1</u>
A[1] =	9	9	<u>8</u>	8	<u>9</u>	9
A[2] =	6	6	6	<u>6</u>	6	6
A[3] =	8	8	<u>9</u>	9	<u>8</u>	8
A[4] =	3	<u>1</u>	1	1	1	<u>3</u>

Note: it reverses the array and then reverses it again, so there is no change to it.

```
Set i = 0
```

```
Repeat
```

```
ExitOn (i > 4)
```

```
    Set j = 4 - i
```

```
-- Does something
```

```
    Set temp = A[i]
```

```
    Set A[i] = A[j]
```

```
    Set A[j] = temp
```

```
    Inc i by 1
```

```
EndRepeat
```

	i =	0	1	2	3	4
	j =	4	3	2	1	0
temp =		1	9	6	8	3
A[i] =		3	8	6	9	1
A[j] =		1	9	6	8	3