|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 30 | 28 | 40 | 4 | 7 | 76 | 17 |

Divide the array in two parts

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30 | 28 | 40 | 4 |  |  | 7 | 76 | 17 |

Divide the array in two part

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30 | 28 |  | 40 | 4 |  |  | 7 | 26 |  | 17 |

Break each element again

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 30 |  | 28 |  | 40 |  | 4 |  | 7 |  | 26 |  | 17 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 28 | 30 |  |  |  | 4 | 40 |  | 7 | 26 |  | 17 |  |

Sort the element small to large

Sort the element small to large

Merge the divided sorted array together

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 4 | 28 | 30 | 40 |  |  | 7 | 17 | 26 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 4 | 7 | 17 | 26 | 28 | 30 | 40 |

The array is sorted now