**Merge sort Algorithm**

1. Algorithm Merge sort(l,h)
2. {
3. We need to find if(l<h)
4. {
5. Then we to find mid element ,Mid=(l+h)/2 ;
6. And perform merge sort from(l, mid)
7. And also Perform merge sort (mid+1,h);
8. Then merge(l ,mid, h)
9. }
10. }

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| 38 | 27 | 43 | 3 | 9 | 82 | 10 |

Example:

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| 38 | 27 | 43 | 3 |

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| --- | --- | --- |
| 9 | 82 | 10 |

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| --- | --- |
| 38 | 27 |

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| --- | --- |
| 43 | 3 |

|  |  |
| --- | --- |
| 9 | 82 |

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| 38 |

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| 9 | 82 |

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| 3 | 43 |

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| 27 | 38 |

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| --- | --- | --- | --- |
| 3 | 27 | 38 | 43 |

|  |  |  |
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| 9 | 10 | 82 |

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| 3 | 9 | 10 | 27 | 38 | 43 | 82 |