

1) Insertion Sort

Step 0 =

25	7	9	13	3
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Step 1 =

7	25	9	13	3
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Step 2 =

7	9	25	13	3
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Step 3 =

7	9	13	25	3
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Step 4 =

3	7	9	13	25
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2) Bubble Sort

25	7	9	13	3
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i=1 J=4

25	7	9	13	3
----	---	---	----	---

J=3

25	7	9	3	13
----	---	---	---	----

J=2

25	7	3	9	13
----	---	---	---	----

J=1

25	3	7	9	13
----	---	---	---	----

i=2 J=4

3	25	7	9	13
---	----	---	---	----

J=3

3	25	7	9	13
---	----	---	---	----

J=2

3	25	7	9	13
---	----	---	---	----

i=3 J=4

3	7	25	9	13
---	---	----	---	----

J=3

3	7	25	9	13
---	---	----	---	----

i=4 J=4

3	7	9	25	13
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Akhir

3	7	9	13	25
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3) Selection Sort

$\begin{array}{c} 25 \mid 7 \mid 9 \mid 13 \mid 3 \\ \uparrow \qquad \qquad \qquad \uparrow \\ 3 \mid 7 \mid 9 \mid 13 \mid 25 \\ \uparrow \\ 3 \mid 7 \mid 9 \mid 13 \mid 25 \\ \uparrow \\ 3 \mid 7 \mid 9 \mid 13 \mid 25 \\ \uparrow \\ 3 \mid 7 \mid 9 \mid 13 \mid 25 \end{array}$

$\begin{array}{c} 2 \mid 21 \mid 2 \mid 25 \mid 5 \\ 2 \mid 21 \mid 2 \mid 25 \mid 5 \\ 2 \mid 21 \mid 25 \mid 2 \mid 5 \\ 2 \mid 25 \mid 21 \mid 2 \mid 5 \\ 25 \mid 21 \mid 2 \mid 5 \mid 5 \end{array}$

4) Shell Sort

$\begin{array}{c} 0 \quad 1 \quad 2 \quad 3 \quad 4 \\ 25 \mid 7 \mid 9 \mid 13 \mid 3 \end{array}$

= jarak $h = 2$

$3 \mid 13 \mid 9 \mid 7 \mid 25$

$3 \mid 13 \mid 9 \mid 7 \mid 25$

$3 \mid 7 \mid 9 \mid 13 \mid 25$

= jarak = 1

$\begin{array}{c} 25 \mid 7 \mid 9 \mid 13 \mid 3 \quad p=4 \quad s=1 \\ 21 \mid 2 \mid 2 \mid 5 \mid 25 \quad s=2 \\ 21 \mid 2 \mid 2 \mid 5 \mid 25 \quad s=1 \\ 21 \mid 2 \mid 2 \mid 5 \mid 25 \quad s=1 \\ 21 \mid 2 \mid 2 \mid 5 \mid 25 \quad p=4 \quad s=1 \\ 21 \mid 2 \mid 25 \mid 2 \mid 5 \quad s=1 \\ 25 \mid 21 \mid 2 \mid 5 \mid 5 \quad s=1 \\ 25 \mid 21 \mid 2 \mid 5 \mid 5 \quad p=1 \quad s=1 \\ 25 \mid 21 \mid 2 \mid 5 \mid 5 \quad s=1 \end{array}$

7.) Menggunakan Insertion search dan Sequential Search

Step 0 = 25 | 7 | 9 | 13 | 3

Step 1 = 7 | 25 | 9 | 13 | 3

Step 2 = 7 | 9 | 25 | 13 | 3

Step 3 = 7 | 9 | 13 | 25 | 3

Step 4 = 3 | 7 | 9 | 13 | 25

Mencari data 13 :

- Pencarian dimulai pada indeks 0 yaitu 3, kemudian dicocokkan dengan angka yang dicari yaitu 13, jika tidak sama pencarian akan dilanjutkan ke indeks selanjutnya.
- pada indeks ke 2 yaitu angka 9 juga bukan angka yang dicari, maka dilanjutkan pada indeks selanjutnya
- pada indeks ke 3 yaitu angka 13, ternyata angka telah ditemukan, maka pencarian akan dihentikan dan keluar dari looping pencarian

Data 13 berada di indeks 3