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**SOAL UAS ASD**

1. Lakukan pencarian dengan interpolation search dari deret data berikut :

**39 11 12 15 17 23 31 35**

1. x = 15 => low?high?
2. x = 5 => low?high?
3. x = 35 => low?high?

2. Buatlah flowchart dari algoritma interpolation search!

**JAWABAN**

1. Misal :

0 1 2 3 4 5 6 7

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **11** | **12** | **15** | **17** | **23** | **31** | **35** | **39** |

*Low* *High*

Penyelesaian :

1. x = **15**

Kunci pencarian? **15**

Low = **0**

High = **7**

Posisi = *× idx[high]-idx[low] + idx[low]*

Posisi = *×* **(7-0) + 0 = [1]**

Kunci **[1]** = 12 < kunci pencarian (15), maka teruskan :

Low = **1 + 1 =2**

High = **7**

Kunci **[2]** = kunci pencarian, data ditemukan : **15**

1. x = **5**

Kunci pencarian? **5**

Low = **0**

High = **7**

Posisi = *× idx[high]-idx[low] + idx[low]*

Posisi = *×* **(7-0) + 0 = [-2]**

**K**unci **[-2]** < kunci pencarian (5), maka teruskan

Low = **-2+ 1 = -1**

High = **7**

Kunci **[-1]** = kunci pencarian, tidak ada data ditemukan dengan kunci pencarian **[-1]**, karena *index* minimal 0.

1. x = **35**

Kunci pencarian? **35**

Low = **0**

High = **7**

Posisi = *× idx[high]-idx[low] + idx[low]*

Posisi = *×* **(7-0) + 0 = [6]**

Kunci **[6]** = kunci pencarian, data ditemukan : **35**

2. Flowchart algoritma interpolation search :

