

Search(45, A[1..33])

A:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
2	6	7	11	14	19	22	25	28	33	34	37	45	48	50	52	55	56	62	66	68	71	77	79	82	83	85	89	91	92	95	99	102




45 < 55 ⇒ move left

(recursively call Search(45, A[1..17]))

Search(45, A[1..17])

A:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
2	6	7	11	14	19	22	25	28	33	34	37	45	48	50	52	55	56	62	66	68	71	77	79	82	83	85	89	91	92	95	99	102



$45 > 28 \Rightarrow$ move right

(recursively call Search(45, A[9..17]))

Search(45, A[9..17])

A:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
2	6	7	11	14	19	22	25	28	33	34	37	45	48	50	52	55	56	62	66	68	71	77	79	82	83	85	89	91	92	95	99	102


45 = 45 \Rightarrow search done

(return 13 as location of 45)

Search(86, A[1..33])

A:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
2	6	7	11	14	19	22	25	28	33	34	37	45	48	50	52	55	56	62	66	68	71	77	79	82	83	85	89	91	92	95	99	102




86 > 55 ⇒ move right

(recursively call Search(86, A[17..33]))

Search(86, A[17..33])

A:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
2	6	7	11	14	19	22	25	28	33	34	37	45	48	50	52	55	56	62	66	68	71	77	79	82	83	85	89	91	92	95	99	102



86 > 82 \Rightarrow move right

(recursively call Search(86, A[25..33]))

Search(86, A[25..33])

A:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
2	6	7	11	14	19	22	25	28	33	34	37	45	48	50	52	55	56	62	66	68	71	77	79	82	83	85	89	91	92	95	99	102

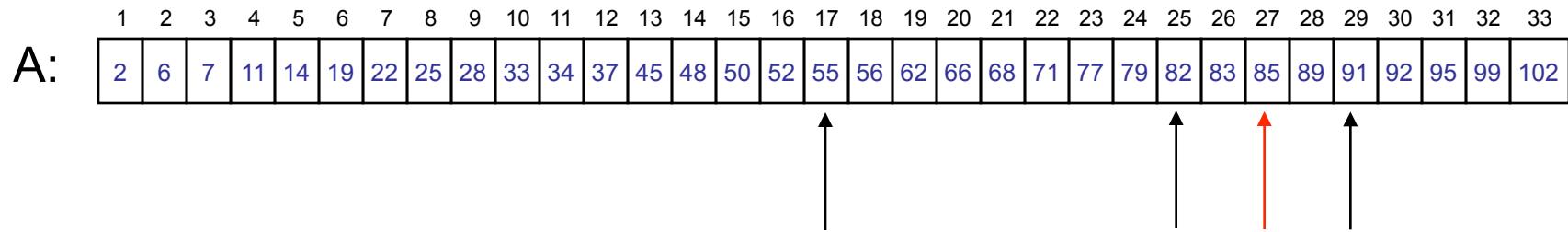
86 < 91 \Rightarrow move left

(recursively call Search(86, A[25..29]))

Search(86, A[25..29])

A:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
2	6	7	11	14	19	22	25	28	33	34	37	45	48	50	52	55	56	62	66	68	71	77	79	82	83	85	89	91	92	95	99	102



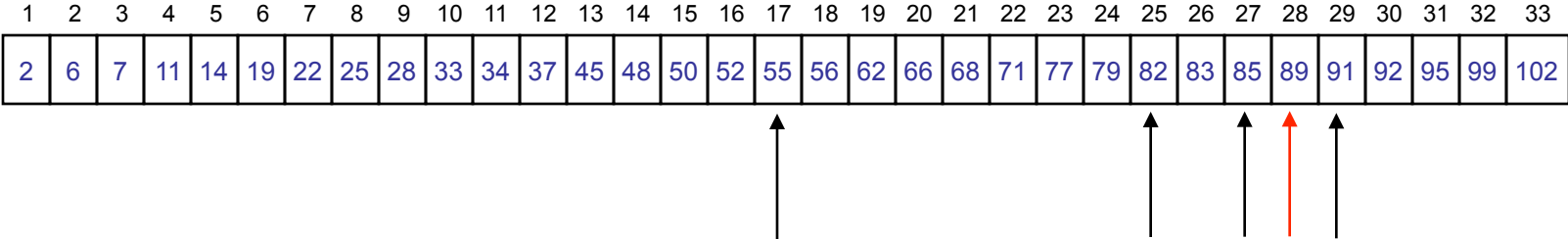
86 > 85 ⇒ move right

(recursively call Search(86, A[27..29]))

Search(86, A[27..29])

A:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
2	6	7	11	14	19	22	25	28	33	34	37	45	48	50	52	55	56	62	66	68	71	77	79	82	83	85	89	91	92	95	99	102



$86 < 89 \Rightarrow 86$ not present

(because $86 > A[27]$ and $86 < A[28]$)