

CEILING: LOWEST NUM \geq TARGET

FLOOR: HIGHEST NUM \leq TARGET

INPUT: 1, 3, 8, 10, 15

KEY: 12

CEILING: 15

FLOOR: 10

0 1 2 3 4
1 3 8 10 15
↑ ↑ ↑
L MID H

$A[MID] < TARGET$

LOW: $MID + 1$

1 3 8 10 15
↑ ↑ ↑
L M H

$A[MID] < TARGET$

LOW: $MID + 1$

1 3 8 10 15
↑ ↑ ↑
L H M

$A[MID] > TARGET$

HIGH: $MID - 1$

1 3 8 10 15
↑ ↑
H L

HIGH $<$ LOW:

Loop ends

RETURN $A[H]$ for FLOOR \rightarrow end/high

RETURN $A[L]$ for CEILING \rightarrow start/low