

# Insertion Sort

First step ( $j=2$ )  
Starting list: 42, 19, 32, 11, 8

\*  $j=2, i=1, 19 > 42?$  No. Exit.

$m = 19$  ①

for  $k=0$  to 0:

$k=0, a_2 = 42$  ②

$a_1 = 19$  ③



Next step ( $j=3$ )  
Current list: 19, 42, 32, 11, 8

\*  $j=3, i=1, 32 > 19?$  Yes.  $\Rightarrow i=2$

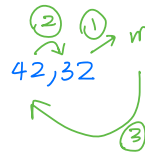
$i=2, 32 > 42?$  No. Exit.

$m = 32$  ①

for  $k=0$  to 0:

$k=0, a_3 = 42$  ②

$a_2 = 32$  ③



Next step ( $j=4$ )  
Current list: 19, 32, 42, 11, 8

\*  $j=4, i=1, 11 > 19?$  No. Exit.

$m = 11$  ①

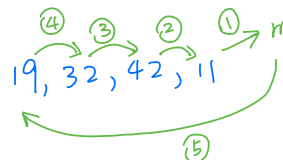
for  $k=0$  to 2:

$k=0, a_4 = 42$  ②

$k=1, a_3 = 32$  ③

$k=2, a_2 = 19$  ④

$a_1 = 11$  ⑤



Next step ( $j=5$ )  
Current list: 11, 19, 32, 42, 8

\*  $j=5, i=1, 8 > 11?$  No. Exit.

$m = 8$  ①

for  $k=0$  to 3:

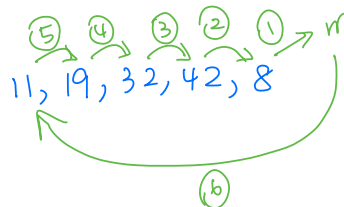
$k=0, a_5 = 42$  ②

$k=1, a_4 = 32$  ③

$k=2, a_3 = 19$  ④

$k=3, a_2 = 11$  ⑤

$a_1 = 8$  ⑥



Final list: 8, 11, 19, 32, 42