

## Stdin Inputs

## Result

CPU Time: 2.01 sec(s), Memory: 220564 kilobyte(s)

compiled and executed in 4.479 sec(s)

\*\*\*\*\* Analysis of QUICK SORT using STACK \*\*\*\*\*

### 1. Simple Quick Sort :

#### A. Already sorted Array :

size(n)    time taken (in microseconds)

100	43
200	94
300	177
400	337
500	445
600	633
700	840
800	1151
900	1292
1000	1737

#### B. Reverse sorted Array :

size(n)    time taken (in microseconds)

100	44
200	129
300	187
400	305
500	439
600	629
700	904
800	1066
900	1355
1000	1691

#### C. Unsorted Array :

size(n)    time taken (in microseconds)

100	26
200	46
300	80
400	102
500	107
600	132
700	160
800	179
900	201
1000	228

### 2. Random Quick Sort :

#### A. Already sorted Array :

size(n)    time taken (in microseconds)

100	13
200	27
300	43
400	57
500	73
600	90
700	103
800	120
900	138
1000	152

## B. Reverse sorted Array :

size(n)	time taken (in microseconds)
100	16
200	33
300	54
400	68
500	102
600	125
700	123
800	140
900	157
1000	174

## C. Unsorted Array :

size(n)	time taken (in microseconds)
100	19
200	45
300	73
400	118
500	153
600	148
700	186
800	205
900	224
1000	281

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3. Median Quick Sort :

## A. Already sorted Array :

size(n)	time taken (in microseconds)
100	13
200	26
300	68
400	52
500	63
600	73
700	91
800	104
900	107
1000	116

## B. Reverse sorted Array :

size(n)	time taken (in microseconds)
100	14
200	31
300	58
400	81
500	100
600	135
700	170
800	271
900	260
1000	297

## C. Unsorted Array :

size(n)	time taken (in microseconds)
100	17
200	40
300	61
400	86
500	108
600	130
700	156
800	175
900	197

Thanks for using our  
**Online C++ 17 Compiler IDE**  
to execute your program