

2)Profiling Output

//Name-Gaurang Todkar

/PRN-22610033

//gprof output

Flat profile:

Each sample counts as 0.01 seconds.

no time accumulated

%	cumulative	self		self	total	
time	seconds	seconds	calls	Ts/call	Ts/call	name
0.00	0.00	0.00	808	0.00	0.00	__gnu_cxx::__normal_iterator<int const*, std::vector<int, std::allocator<int> > >::base() const
0.00	0.00	0.00	620	0.00	0.00	__gnu_cxx::__enable_if<std::__is_integer<int>::__value, double>::__type std::sqrt<int>(int)
0.00	0.00	0.00	404	0.00	0.00	bool __gnu_cxx::operator!=<int const*, std::vector<int, std::allocator<int> > >(__gnu_cxx::__normal_iterator<int const*, std::vector<int, std::allocator<int> > > const&, __gnu_cxx::__normal_iterator<int const*, std::vector<int, std::allocator<int> > > const&)
0.00	0.00	0.00	400	0.00	0.00	__gnu_cxx::__normal_iterator<int const*, std::vector<int, std::allocator<int> > >::operator++()
0.00	0.00	0.00	400	0.00	0.00	__gnu_cxx::__normal_iterator<int const*, std::vector<int, std::allocator<int> > >::operator*() const
0.00	0.00	0.00	299	0.00	0.00	std::vector<int, std::allocator<int> >::operator[](unsigned long)
0.00	0.00	0.00	102	0.00	0.00	std::vector<int, std::allocator<int> >::size() const
0.00	0.00	0.00	100	0.00	0.00	isEven(int)
0.00	0.00	0.00	100	0.00	0.00	isPrime(int)
0.00	0.00	0.00	100	0.00	0.00	factorial(int)
0.00	0.00	0.00	100	0.00	0.00	std::vector<int, std::allocator<int> >::operator[](unsigned long) const
0.00	0.00	0.00	8	0.00	0.00	__gnu_cxx::__normal_iterator<int const*, std::vector<int, std::allocator<int> > >::__normal_iterator(int const* const&)
0.00	0.00	0.00	6	0.00	0.00	__gnu_cxx::new_allocator<int>::~~new_allocator()
0.00	0.00	0.00	6	0.00	0.00	std::allocator<int>::~~allocator()
0.00	0.00	0.00	4	0.00	0.00	__gnu_cxx::new_allocator<int>::new_allocator(__gnu_cxx::new_allocator<int> const&)
0.00	0.00	0.00	4	0.00	0.00	__gnu_cxx::new_allocator<int>::__M_max_size() const
0.00	0.00	0.00	4	0.00	0.00	std::vector<int, std::allocator<int> >::end() const
0.00	0.00	0.00	4	0.00	0.00	std::vector<int, std::allocator<int> >::begin() const
0.00	0.00	0.00	4	0.00	0.00	std::allocator<int>::allocator(std::allocator<int> const&)
0.00	0.00	0.00	4	0.00	0.00	std::_Vector_base<int, std::allocator<int> >::__M_get_Tp_allocator()
0.00	0.00	0.00	2	0.00	0.00	printArray(std::vector<int, std::allocator<int> > const&)
0.00	0.00	0.00	2	0.00	0.00	__gnu_cxx::new_allocator<int>::~deallocate(int*, unsigned long)

```

0.00 0.00 0.00 2 0.00 0.00 __gnu_cxx::new_allocator<int>::allocate(unsigned
long, void const*)
0.00 0.00 0.00 2 0.00 0.00 __gnu_cxx::new_allocator<int>::new_allocator()
0.00 0.00 0.00 2 0.00 0.00 __gnu_cxx::new_allocator<int>::max_size() const
0.00 0.00 0.00 2 0.00 0.00 std::allocator<int>::allocator()
0.00 0.00 0.00 2 0.00 0.00 void std::_Destroy_aux<true>::__destroy<int*>(int*,
int*)
0.00 0.00 0.00 2 0.00 0.00 std::_Vector_base<int, std::allocator<int>
>::_M_allocate(unsigned long)
0.00 0.00 0.00 2 0.00 0.00 std::_Vector_base<int, std::allocator<int>
>::_Vector_impl::_Vector_impl(std::allocator<int> const&)
0.00 0.00 0.00 2 0.00 0.00 std::_Vector_base<int, std::allocator<int>
>::_Vector_impl::~~_Vector_impl()
0.00 0.00 0.00 2 0.00 0.00 std::_Vector_base<int, std::allocator<int>
>::_M_deallocate(int*, unsigned long)
0.00 0.00 0.00 2 0.00 0.00 std::_Vector_base<int, std::allocator<int>
>::_M_create_storage(unsigned long)
0.00 0.00 0.00 2 0.00 0.00 std::_Vector_base<int, std::allocator<int>
>::_Vector_impl_data::_Vector_impl_data()
0.00 0.00 0.00 2 0.00 0.00 std::_Vector_base<int, std::allocator<int>
>::_Vector_base(unsigned long, std::allocator<int> const&)
0.00 0.00 0.00 2 0.00 0.00 std::_Vector_base<int, std::allocator<int>
>::~~_Vector_base()
0.00 0.00 0.00 2 0.00 0.00 std::allocator_traits<std::allocator<int>
>::deallocate(std::allocator<int>&, int*, unsigned long)
0.00 0.00 0.00 2 0.00 0.00 std::allocator_traits<std::allocator<int>
>::allocate(std::allocator<int>&, unsigned long)
0.00 0.00 0.00 2 0.00 0.00 std::allocator_traits<std::allocator<int>
>::max_size(std::allocator<int> const&)
0.00 0.00 0.00 2 0.00 0.00 int*
std::__uninitialized_default_n_1<true>::__uninit_default_n<int*, unsigned long>(int*, unsigned
long)
0.00 0.00 0.00 2 0.00 0.00 std::vector<int, std::allocator<int>
>::_S_max_size(std::allocator<int> const&)
0.00 0.00 0.00 2 0.00 0.00 std::vector<int, std::allocator<int>
>::_S_check_init_len(unsigned long, std::allocator<int> const&)
0.00 0.00 0.00 2 0.00 0.00 std::vector<int, std::allocator<int>
>::_M_default_initialize(unsigned long)
0.00 0.00 0.00 2 0.00 0.00 std::vector<int, std::allocator<int> >::vector(unsigned
long, std::allocator<int> const&)
0.00 0.00 0.00 2 0.00 0.00 std::vector<int, std::allocator<int> >::~~vector()
0.00 0.00 0.00 2 0.00 0.00 void std::_Construct<int>(int*)
0.00 0.00 0.00 2 0.00 0.00 int* std::__fill_n_a<int*, unsigned long, int>(int*,
unsigned long, int const&, std::random_access_iterator_tag)
0.00 0.00 0.00 2 0.00 0.00 int* std::__addressof<int>(int&)
0.00 0.00 0.00 2 0.00 0.00 std::__size_to_integer(unsigned long)
0.00 0.00 0.00 2 0.00 0.00 std::iterator_traits<int*>::iterator_category
std::__iterator_category<int*>(int* const&)
0.00 0.00 0.00 2 0.00 0.00 int* std::__uninitialized_default_n<int*, unsigned
long>(int*, unsigned long)
0.00 0.00 0.00 2 0.00 0.00 int* std::__uninitialized_default_n_a<int*, unsigned
long, int>(int*, unsigned long, std::allocator<int>&)

```

0.00	0.00	0.00	2	0.00	0.00	unsigned long const& std::min<unsigned
long>(unsigned long const&, unsigned long const&)						
0.00	0.00	0.00	2	0.00	0.00	int* std::fill_n<int*, unsigned long, int>(int*, unsigned
long, int const&)						
0.00	0.00	0.00	2	0.00	0.00	void std::_Destroy<int*>(int*, int*)
0.00	0.00	0.00	2	0.00	0.00	void std::_Destroy<int*, int>(int*, int*,
std::allocator<int>&)						
0.00	0.00	0.00	2	0.00	0.00	void std::__fill_a<int*, int>(int*, int*, int const&)
0.00	0.00	0.00	2	0.00	0.00	__gnu_cxx::__enable_if<std::__is_scalar<int>::__value,
void>::__type std::__fill_a1<int*, int>(int*, int*, int const&)						
0.00	0.00	0.00	2	0.00	0.00	operator new(unsigned long, void*)
0.00	0.00	0.00	1	0.00	0.00	processArray(std::vector<int, std::allocator<int> >
const&)						
0.00	0.00	0.00	1	0.00	0.00	calculateAverage(std::vector<int, std::allocator<int> >
const&)						
0.00	0.00	0.00	1	0.00	0.00	generateRandomArray(int, int, int)
0.00	0.00	0.00	1	0.00	0.00	__static_initialization_and_destruction_0(int, int)
0.00	0.00	0.00	1	0.00	0.00	prefixSum(std::vector<int, std::allocator<int> > const&)

% the percentage of the total running time of the
time program used by this function.

cumulative a running sum of the number of seconds accounted
seconds for by this function and those listed above it.

self the number of seconds accounted for by this
seconds function alone. This is the major sort for this
 listing.

calls the number of times this function was invoked, if
 this function is profiled, else blank.

self the average number of milliseconds spent in this
ms/call function per call, if this function is profiled,
 else blank.

total the average number of milliseconds spent in this
ms/call function and its descendents per call, if this
 function is profiled, else blank.

name the name of the function. This is the minor sort
 for this listing. The index shows the location of
 the function in the gprof listing. If the index is
 in parenthesis it shows where it would appear in
 the gprof listing if it were to be printed.

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Call graph (explanation follows)

granularity: each sample hit covers 4 byte(s) no time propagated

```

index % time  self children  called  name
      0.00  0.00  808/808      bool __gnu_cxx::operator!=<int const*, std::vector<int,
std::allocator<int> > >(__gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > > const&, __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > > const&) [10]
[8]  0.0  0.00  0.00  808      __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > >::base() const [8]
-----
      0.00  0.00  620/620      isPrime(int) [16]
[9]  0.0  0.00  0.00  620      __gnu_cxx::__enable_if<std::__is_integer<int>::__value,
double>::__type std::sqrt<int>(int) [9]
-----
      0.00  0.00  101/404      calculateAverage(std::vector<int, std::allocator<int> >
const&) [67]
      0.00  0.00  101/404      processArray(std::vector<int, std::allocator<int> > const&)
[66]
      0.00  0.00  202/404      printArray(std::vector<int, std::allocator<int> > const&) [28]
[10] 0.0  0.00  0.00  404      bool __gnu_cxx::operator!=<int const*, std::vector<int,
std::allocator<int> > >(__gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > > const&, __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > > const&) [10]
      0.00  0.00  808/808      __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > >::base() const [8]
-----
      0.00  0.00  100/400      calculateAverage(std::vector<int, std::allocator<int> >
const&) [67]
      0.00  0.00  100/400      processArray(std::vector<int, std::allocator<int> > const&)
[66]
      0.00  0.00  200/400      printArray(std::vector<int, std::allocator<int> > const&) [28]
[11] 0.0  0.00  0.00  400      __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > >::operator++() [11]
-----
      0.00  0.00  100/400      calculateAverage(std::vector<int, std::allocator<int> >
const&) [67]
      0.00  0.00  100/400      processArray(std::vector<int, std::allocator<int> > const&)
[66]
      0.00  0.00  200/400      printArray(std::vector<int, std::allocator<int> > const&) [28]
[12] 0.0  0.00  0.00  400      __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > >::operator*() const [12]
-----
      0.00  0.00  100/299      generateRandomArray(int, int, int) [68]
      0.00  0.00  199/299      prefixSum(std::vector<int, std::allocator<int> > const&) [70]
[13] 0.0  0.00  0.00  299      std::vector<int, std::allocator<int> >::operator[](unsigned long)
[13]
-----

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0.00 0.00 1/102 calculateAverage(std::vector<int, std::allocator<int> > const&)
[67]
0.00 0.00 101/102 prefixSum(std::vector<int, std::allocator<int> > const&) [70]
[14] 0.0 0.00 0.00 102 std::vector<int, std::allocator<int> >::size() const [14]
-----
0.00 0.00 100/100 processArray(std::vector<int, std::allocator<int> > const&)
[66]
[15] 0.0 0.00 0.00 100 isEven(int) [15]
-----
0.00 0.00 100/100 processArray(std::vector<int, std::allocator<int> > const&)
[66]
[16] 0.0 0.00 0.00 100 isPrime(int) [16]
0.00 0.00 620/620 __gnu_cxx::__enable_if<std::__is_integer<int>::__value,
double>::__type std::sqrt<int>(int) [9]
-----
484303 factorial(int) [17]
0.00 0.00 100/100 processArray(std::vector<int, std::allocator<int> > const&)
[66]
[17] 0.0 0.00 0.00 100+484303 factorial(int) [17]
484303 factorial(int) [17]
-----
0.00 0.00 100/100 prefixSum(std::vector<int, std::allocator<int> > const&) [70]
[18] 0.0 0.00 0.00 100 std::vector<int, std::allocator<int> >::operator[](unsigned long)
const [18]
-----
0.00 0.00 4/8 std::vector<int, std::allocator<int> >::begin() const [25]
0.00 0.00 4/8 std::vector<int, std::allocator<int> >::end() const [24]
[19] 0.0 0.00 0.00 8 __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > >::__normal_iterator(int const* const&) [19]
-----
0.00 0.00 6/6 std::allocator<int>::~~allocator() [21]
[20] 0.0 0.00 0.00 6 __gnu_cxx::new_allocator<int>::~~new_allocator() [20]
-----
0.00 0.00 1/6 generateRandomArray(int, int, int) [68]
0.00 0.00 1/6 prefixSum(std::vector<int, std::allocator<int> > const&) [70]
0.00 0.00 2/6 std::_Vector_base<int, std::allocator<int>
>::_Vector_impl::~~_Vector_impl() [37]
0.00 0.00 2/6 std::vector<int, std::allocator<int>
>::_S_check_init_len(unsigned long, std::allocator<int> const&) [48]
[21] 0.0 0.00 0.00 6 std::allocator<int>::~~allocator() [21]
0.00 0.00 6/6 __gnu_cxx::new_allocator<int>::~~new_allocator() [20]
-----
0.00 0.00 4/4 std::allocator<int>::allocator(std::allocator<int> const&) [26]
[22] 0.0 0.00 0.00 4
__gnu_cxx::new_allocator<int>::new_allocator(__gnu_cxx::new_allocator<int> const&) [22]
-----
0.00 0.00 2/4 __gnu_cxx::new_allocator<int>::max_size() const [32]
0.00 0.00 2/4 __gnu_cxx::new_allocator<int>::allocate(unsigned long, void
const*) [30]
[23] 0.0 0.00 0.00 4 __gnu_cxx::new_allocator<int>::_M_max_size() const [23]
-----

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0.00 0.00 1/4 calculateAverage(std::vector<int, std::allocator<int> > const&)
[67]
0.00 0.00 1/4 processArray(std::vector<int, std::allocator<int> > const&) [66]
0.00 0.00 2/4 printArray(std::vector<int, std::allocator<int> > const&) [28]
[24] 0.0 0.00 0.00 4 std::vector<int, std::allocator<int> >::end() const [24]
0.00 0.00 4/8 __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > >::__normal_iterator(int const* const&) [19]
-----
0.00 0.00 1/4 calculateAverage(std::vector<int, std::allocator<int> > const&)
[67]
0.00 0.00 1/4 processArray(std::vector<int, std::allocator<int> > const&) [66]
0.00 0.00 2/4 printArray(std::vector<int, std::allocator<int> > const&) [28]
[25] 0.0 0.00 0.00 4 std::vector<int, std::allocator<int> >::begin() const [25]
0.00 0.00 4/8 __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > >::__normal_iterator(int const* const&) [19]
-----
0.00 0.00 2/4 std::vector<int, std::allocator<int>
>::_S_check_init_len(unsigned long, std::allocator<int> const&) [48]
0.00 0.00 2/4 std::_Vector_base<int, std::allocator<int>
>::_Vector_impl::_Vector_impl(std::allocator<int> const&) [36]
[26] 0.0 0.00 0.00 4 std::allocator<int>::allocator(std::allocator<int> const&) [26]
0.00 0.00 4/4
__gnu_cxx::new_allocator<int>::new_allocator(__gnu_cxx::new_allocator<int> const&) [22]
-----
0.00 0.00 2/4 std::vector<int, std::allocator<int> >::~~vector() [51]
0.00 0.00 2/4 std::vector<int, std::allocator<int>
>::_M_default_initialize(unsigned long) [49]
[27] 0.0 0.00 0.00 4 std::_Vector_base<int, std::allocator<int>
>::_M_get_Tp_allocator() [27]
-----
0.00 0.00 2/2 main [6]
[28] 0.0 0.00 0.00 2 printArray(std::vector<int, std::allocator<int> > const&) [28]
0.00 0.00 202/404 bool __gnu_cxx::operator!=<int const*, std::vector<int,
std::allocator<int> > >((__gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > > const&, __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > > const&) [10]
0.00 0.00 200/400 __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > >::operator*() const [12]
0.00 0.00 200/400 __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > >::operator++() [11]
0.00 0.00 2/4 std::vector<int, std::allocator<int> >::begin() const [25]
0.00 0.00 2/4 std::vector<int, std::allocator<int> >::end() const [24]
-----
0.00 0.00 2/2 std::allocator_traits<std::allocator<int>
>::deallocate(std::allocator<int>&, int*, unsigned long) [43]
[29] 0.0 0.00 0.00 2 __gnu_cxx::new_allocator<int>::deallocate(int*, unsigned long)
[29]
-----
0.00 0.00 2/2 std::allocator_traits<std::allocator<int>
>::allocate(std::allocator<int>&, unsigned long) [44]
[30] 0.0 0.00 0.00 2 __gnu_cxx::new_allocator<int>::allocate(unsigned long, void
const*) [30]

```

	0.00	0.00	2/4	__gnu_cxx::new_allocator<int>::_M_max_size() const [23]

	0.00	0.00	2/2	std::allocator<int>::allocator() [33]
[31]	0.0	0.00	0.00	2 __gnu_cxx::new_allocator<int>::new_allocator() [31]

	0.00	0.00	2/2	std::allocator_traits<std::allocator<int>>
	>::max_size(std::allocator<int> const&) [45]			
[32]	0.0	0.00	0.00	2 __gnu_cxx::new_allocator<int>::max_size() const [32]
	0.00	0.00	2/4	__gnu_cxx::new_allocator<int>::_M_max_size() const [23]

	0.00	0.00	1/2	generateRandomArray(int, int, int) [68]
	0.00	0.00	1/2	prefixSum(std::vector<int, std::allocator<int> > const&) [70]
[33]	0.0	0.00	0.00	2 std::allocator<int>::allocator() [33]
	0.00	0.00	2/2	__gnu_cxx::new_allocator<int>::new_allocator() [31]

	0.00	0.00	2/2	void std::_Destroy<int*>(int*, int*) [61]
[34]	0.0	0.00	0.00	2 void std::_Destroy_aux<true>::__destroy<int*>(int*, int*) [34]

	0.00	0.00	2/2	std::_Vector_base<int, std::allocator<int>>
	>::_M_create_storage(unsigned long) [39]			
[35]	0.0	0.00	0.00	2 std::_Vector_base<int, std::allocator<int>>
	>::_M_allocate(unsigned long) [35]			
	0.00	0.00	2/2	std::allocator_traits<std::allocator<int>>
	>::allocate(std::allocator<int>&, unsigned long) [44]			

	0.00	0.00	2/2	std::_Vector_base<int, std::allocator<int>>
	>::_Vector_base(unsigned long, std::allocator<int> const&) [41]			
[36]	0.0	0.00	0.00	2 std::_Vector_base<int, std::allocator<int>>
	>::_Vector_impl::_Vector_impl(std::allocator<int> const&) [36]			
	0.00	0.00	2/2	std::_Vector_base<int, std::allocator<int>>
	>::_Vector_impl_data::_Vector_impl_data() [40]			
	0.00	0.00	2/4	std::allocator<int>::allocator(std::allocator<int> const&) [26]

	0.00	0.00	2/2	std::_Vector_base<int, std::allocator<int>> >::~~_Vector_base()
[42]				
[37]	0.0	0.00	0.00	2 std::_Vector_base<int, std::allocator<int>>
	>::_Vector_impl::~~_Vector_impl() [37]			
	0.00	0.00	2/6	std::allocator<int>::~~allocator() [21]

	0.00	0.00	2/2	std::_Vector_base<int, std::allocator<int>> >::~~_Vector_base()
[42]				
[38]	0.0	0.00	0.00	2 std::_Vector_base<int, std::allocator<int>>
	>::_M_deallocate(int*, unsigned long) [38]			
	0.00	0.00	2/2	std::allocator_traits<std::allocator<int>>
	>::deallocate(std::allocator<int>&, int*, unsigned long) [43]			

	0.00	0.00	2/2	std::_Vector_base<int, std::allocator<int>>
	>::_Vector_base(unsigned long, std::allocator<int> const&) [41]			
[39]	0.0	0.00	0.00	2 std::_Vector_base<int, std::allocator<int>>
	>::_M_create_storage(unsigned long) [39]			
	0.00	0.00	2/2	std::_Vector_base<int, std::allocator<int>>
	>::_M_allocate(unsigned long) [35]			


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-----
0.00 0.00 2/2 std::_Vector_base<int, std::allocator<int>
>::_Vector_impl::_Vector_impl(std::allocator<int> const&) [36]
[40] 0.0 0.00 0.00 2 std::_Vector_base<int, std::allocator<int>
>::_Vector_impl_data::_Vector_impl_data() [40]
-----
0.00 0.00 2/2 std::vector<int, std::allocator<int> >::vector(unsigned long,
std::allocator<int> const&) [50]
[41] 0.0 0.00 0.00 2 std::_Vector_base<int, std::allocator<int>
>::_Vector_base(unsigned long, std::allocator<int> const&) [41]
0.00 0.00 2/2 std::_Vector_base<int, std::allocator<int>
>::_Vector_impl::_Vector_impl(std::allocator<int> const&) [36]
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0.00 0.00 2/2 std::vector<int, std::allocator<int>
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	0.00	0.00	2/2	operator new(unsigned long, void*) [65]

	0.00	0.00	2/2	int* std::fill_n<int*, unsigned long, int>(int*, unsigned long, int const&) [60]
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	0.00	0.00	2/2	int*
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[54]	0.0	0.00	0.00	2 int* std::__addressof<int>(int&) [54]

	0.00	0.00	2/2	int* std::fill_n<int*, unsigned long, int>(int*, unsigned long, int const&) [60]
[55]	0.0	0.00	0.00	2 std::__size_to_integer(unsigned long) [55]

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	0.00	0.00	2/2	int* std::__uninitialized_default_n_a<int*, unsigned long, int>(int*, unsigned long, std::allocator<int>&) [58]
[57]	0.0	0.00	0.00	2 int* std::__uninitialized_default_n<int*, unsigned long>(int*, unsigned long) [57]
	0.00	0.00	2/2	int*
	std::__uninitialized_default_n_1<true>::__uninit_default_n<int*, unsigned long>(int*, unsigned long) [46]			

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[58]	0.0	0.00	0.00	2 int* std::__uninitialized_default_n_a<int*, unsigned long, int>(int*, unsigned long, std::allocator<int>&) [58]
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	0.00	0.00	2/2	int*
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[60]	0.0	0.00	0.00	2 int* std::fill_n<int*, unsigned long, int>(int*, unsigned long, int const&) [60]
	0.00	0.00	2/2	std::__size_to_integer(unsigned long) [55]
	0.00	0.00	2/2	std::iterator_traits<int*>::iterator_category
	std::__iterator_category<int*>(int* const&) [56]			
	0.00	0.00	2/2	int* std::__fill_n_a<int*, unsigned long, int>(int*, unsigned long, int const&, std::random_access_iterator_tag) [53]

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-----
0.00 0.00 2/2 void std::_Destroy<int*, int>(int*, int*, std::allocator<int>&)
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[61] 0.0 0.00 0.00 2 void std::_Destroy<int*>(int*, int*) [61]
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[67]
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std::allocator<int> > > const&)) [10]
0.00 0.00 100/400 __gnu_cxx::__normal_iterator<int const*, std::vector<int,
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0.00 0.00 100/400 __gnu_cxx::__normal_iterator<int const*, std::vector<int,
std::allocator<int> > >::operator++() [11]
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[69]	0.0	0.00	0.00	1 __static_initialization_and_destruction_0(int, int) [69]

	0.00	0.00	1/1	main [6]
[70]	0.0	0.00	0.00	1 prefixSum(std::vector<int, std::allocator<int> > const&) [70]
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	0.00	0.00	1/6	std::allocator<int>::~~allocator() [21]

This table describes the call tree of the program, and was sorted by the total amount of time spent in each function and its children.

Each entry in this table consists of several lines. The line with the index number at the left hand margin lists the current function.

The lines above it list the functions that called this function, and the lines below it list the functions this one called.

This line lists:

index A unique number given to each element of the table.
Index numbers are sorted numerically.
The index number is printed next to every function name so it is easier to look up where the function is in the table.

% time This is the percentage of the `total' time that was spent in this function and its children. Note that due to different viewpoints, functions excluded by options, etc, these numbers will NOT add up to 100%.

self This is the total amount of time spent in this function.

children This is the total amount of time propagated into this function by its children.

called This is the number of times the function was called.

If the function called itself recursively, the number only includes non-recursive calls, and is followed by a '+' and the number of recursive calls.

name The name of the current function. The index number is printed after it. If the function is a member of a cycle, the cycle number is printed between the function's name and the index number.

For the function's parents, the fields have the following meanings:

self This is the amount of time that was propagated directly from the function into this parent.

children This is the amount of time that was propagated from the function's children into this parent.

called This is the number of times this parent called the function '/' the total number of times the function was called. Recursive calls to the function are not included in the number after the '/'.

name This is the name of the parent. The parent's index number is printed after it. If the parent is a member of a cycle, the cycle number is printed between the name and the index number.

If the parents of the function cannot be determined, the word '<spontaneous>' is printed in the 'name' field, and all the other fields are blank.

For the function's children, the fields have the following meanings:

self This is the amount of time that was propagated directly from the child into the function.

children This is the amount of time that was propagated from the child's children to the function.

called This is the number of times the function called this child '/' the total number of times the child was called. Recursive calls by the child are not listed in the number after the '/'.

name This is the name of the child. The child's index number is printed after it. If the child is a member of a cycle, the cycle number is printed between the name and the index number.

If there are any cycles (circles) in the call graph, there is an entry for the cycle-as-a-whole. This entry shows who called the

cycle (as parents) and the members of the cycle (as children.)
The '+' recursive calls entry shows the number of function calls that were internal to the cycle, and the calls entry for each member shows, for that member, how many times it was called from other members of the cycle.

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```