

PERFORM MAINT FILE NAME/TYPE= STDIN
PERFORM MAINT
PERFORM MAINT CREATION DATE/TIME= 14-02-2025 16:35:11
PERFORM MAINT
PERFORM MAINT FILE= 001 PAGES= 0001 LINES= 000015
PERFORM MAINT
PERFORM MAINT SYSTEM= LINUX(6.11.2-AMD64)
PERFORM MAINT
PERFORM MAINT SYSID= ACID SYSUSER= ACID
PERFORM MAINT
PERFORM MAINT FORM= STANDARD
PERFORM MAINT
PERFORM MAINT CHAR= FONTMONO
PERFORM MAINT
PERFORM MAINT PRT1403 VERSION= 1.3

 M M AAA IIIIII N NN TTTTTTTT
 MM MM AAAAA IIIIII NN NN TTTTTTTT
 MMM MMM AA AA II NNN NN TT
 MMMM MMMM AA AA II NNNN NN TT
 MM MMM MM AA AA II NN NN NN TT
 MM M MM AAAAAAAAA II NN NN NN TT
 MM MM AAAAAAAAA II NN NNNN TT
 MM MM AA AA II NN NNN TT
 MM MM AA AA IIIIII NN NN TT
 MM MM AA AA IIIIII NN N TT

 PPPPPPPP EEEEEEEEEE RRRRRRRRR FFFFFFFFF 0000000 RRRRRRRRR M M
 PPPPPPPPPP EEEEEEEEEE RRRRRRRRRR FFFFFFFFF 000000000 RRRRRRRRRR MM MM
 PP PP EE RR RR FF 00 00 RR RR MMM MMM
 PP PP EE RR RR FF 00 00 RR RR MMMM MMMM
 PPPPPPPPPP EEEEEEEEEE RRRRRRRRRR FFFFFFFFF 00 00 RRRRRRRRRR MM MMM MM
 PPPPPPPP EEEEEEEEEE RRRRRRRRR FFFFFFFFF 00 00 RRRRRRRRR MM M MM
 PP EE RR RR FF 00 00 RR RR MM MM
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 0000000 0000000 111111
 00000 00000 111111

1412THE

```
1 import time
2
3 def sum_integers():
4     total = 0
5     for i in range(1, 10**7):
6         total += i
7     return total
8
9 start_time = time.time()
10 result = sum_integers()
11 end_time = time.time()
12
13 print(f"Python: The sum is {result}")
14 print(f"Python: Time taken = {end_time - start_time} seconds")
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PERFORM MAINT FILE NAME/TYPE= STDIN
PERFORM MAINT
PERFORM MAINT CREATION DATE/TIME= 14-02-2025 16:35:11
PERFORM MAINT
PERFORM MAINT FILE= 002 PAGES= 0001 LINES= 000018
PERFORM MAINT
PERFORM MAINT SYSTEM= LINUX(6.11.2-AMD64)
PERFORM MAINT
PERFORM MAINT SYSID= ACID SYSUSER= ACID
PERFORM MAINT
PERFORM MAINT FORM= STANDARD
PERFORM MAINT
PERFORM MAINT CHAR= FONTMONO
PERFORM MAINT
PERFORM MAINT PRT1403 VERSION= 1.3

 M M AAA IIIIII N NN TTTTTTTT
 MM MM AAAAA IIIIII NN NN TTTTTTTT
 MMM MMM AA AA II NNN NN TT
 MMMM MMMM AA AA II NNNN NN TT
 MM MMM MM AA AA II NN NN NN TT
 MM M MM AAAAAAAAA II NN NN NN TT
 MM MM AAAAAAAAA II NN NNNN TT
 MM MM AA AA II NN NNN TT
 MM MM AA AA IIIIII NN NN TT
 MM MM AA AA IIIIII NN N TT

 PPPPPPPP EEEEEEEEEE RRRRRRRRR FFFFFFFFF 0000000 RRRRRRRRR M M
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 PP PP EE RR RR FF 00 00 RR RR MMM MMM
 PP PP EE RR RR FF 00 00 RR RR MMMM MMMM
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 PP EE RR RR FF 00 00 RR RR MM MM
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1412THE

```
1 program performance_test
2   implicit none
3   integer :: i, total
4   real(8) :: start_time, end_time
5
6   total = 0
7   call cpu_time(start_time)
8
9   do i = 1, 10000000
10      total = total + i
11   end do
12
13   call cpu_time(end_time)
14
15   print *, "Fortran: The sum is ", total
16   print *, "Fortran: Time taken = ", end_time - start_time
17 end program performance_test
```

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PERFORM MAINT FILE= 003 PAGES= 0001 LINES= 000022
PERFORM MAINT
PERFORM MAINT SYSTEM= LINUX(6.11.2-AMD64)
PERFORM MAINT
PERFORM MAINT SYSID= ACID SYSUSER= ACID
PERFORM MAINT
PERFORM MAINT FORM= STANDARD
PERFORM MAINT
PERFORM MAINT CHAR= FONTMONO
PERFORM MAINT
PERFORM MAINT PRT1403 VERSION= 1.3

 M M AAA IIIIII N NN TTTTTTTT
 MM MM AAAA IIIIII NN NN TTTTTTTT
 MMM MMM AA AA II NNN NN TT
 MMMM MMMM AA AA II NNNN NN TT
 MM MMM MM AA AA II NN NN NN TT
 MM M MM AAAAAAAA II NN NN NN TT
 MM MM AAAAAAAA II NN NNNN TT
 MM MM AA AA II NN NNN TT
 MM MM AA AA IIIIII NN NN TT
 MM MM AA AA IIIIII NN N TT

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 PPPPPPPP EEEEEEEE RRRRRRRR FFFFFFFF 000000000 RRRRRRRR MM MM
 PP PP EE RR RR FF 00 00 RR RR MMM MMM
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 PP EE RR RR FF 00 00 RR RR MM MM
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 00 00 00 00 33 33
 00 00 00 00 33
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1412THE

```
1 #include <stdio.h>
2 #include <time.h>
3
4 int main() {
5     long i;
6     long total = 0;
7     clock_t start_time, end_time;
8
9     start_time = clock();
10
11     for (i = 1; i < 100000000; i++) {
12         total += i;
13     }
14
15     end_time = clock();
16
17     printf("C: The sum is %ld\n", total);
18     printf("C: Time taken = %lf seconds\n", (double)(end_time - start_time) / CLOCKS_PER_SEC);
19
20     return 0;
21 }
```