

## Тренировочный контест — бэкенд

[Задачи](#) [Посылки](#) [Сообщения](#)

### В. Через тернии к клиенту

✓ Полное решение </> OK Python 3.12.3

^ Исходный код



```
1  class Time:
2      def __init__(self):
3          self.day = 0
4          self.hour = 0
5          self.minute = 0
6
7      def add(self, day, hour, minute):
8          self.day += day
9          self.hour += hour
10         self.minute += minute
11
12     def sub(self, day, hour, minute):
13         self.day -= day
14         self.hour -= hour
15         self.minute -= minute
16
17     def count_minutes(self) -> int:
18         return (self.day * 24 + self.hour) * 60 + self.minute
19
20
21 class LogEntry:
22     def __init__(self, data: list[str]):
23         self.day = int(data[0])
24         self.hour = int(data[1])
25         self.minute = int(data[2])
26         self.id = int(data[3])
27         self.letter = data[4]
28
29
30 def main(filename: str):
31     rockets_time: dict[int, Time] = {}
32
33     with open(filename) as f:
34         next(f)
35
36         for line in f:
37             log = LogEntry(line.split())
38
39             if log.letter == "B":
40                 continue
41
42             if log.id not in rockets_time:
43                 rockets_time[log.id] = Time()
44
45             if log.letter == "A":
46                 rockets_time[log.id].sub(log.day, log.hour, log.minute)
47             else:
48                 rockets_time[log.id].add(log.day, log.hour, log.minute)
49
50     for key in sorted(rockets_time):
51         print(rockets_time[key].count_minutes(), end=" ")
```

```
52
53
54 if __name__ == "__main__":
55     main("input.txt")
56
```

✓ Отличия от предыдущей посылки

Nº	Вердикт	Ресурсы	Баллы	
1	ok	45ms / 4.64Mb	—	✓
2	ok	45ms / 4.64Mb	—	
3	ok	45ms / 4.64Mb	—	
4	ok	45ms / 4.64Mb	—	
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6	ok	45ms / 4.64Mb	—	
7	ok	45ms / 4.64Mb	—	
8	ok	45ms / 4.64Mb	—	
9	ok	45ms / 4.64Mb	—	
10	ok	45ms / 4.64Mb	—	
11	ok	44ms / 4.64Mb	—	
12	ok	45ms / 4.64Mb	—	
13	ok	45ms / 4.64Mb	—	
14	ok	45ms / 4.64Mb	—	
15	ok	44ms / 4.64Mb	—	
16	ok	45ms / 4.64Mb	—	
17	ok	44ms / 4.64Mb	—	
18	ok	45ms / 4.64Mb	—	
19	ok	376ms / 4.64Mb	—	
20	ok	376ms / 4.64Mb	—	
21	ok	0.676s / 24.15Mb	—	
22	ok	377ms / 4.64Mb	—	
23	ok	0.529s / 13.97Mb	—	
24	ok	381ms / 4.64Mb	—	
25	ok	491ms / 11.06Mb	—	
26	ok	379ms / 4.64Mb	—	
27	ok	459ms / 8.48Mb	—	
28	ok	383ms / 4.64Mb	—	
29	ok	445ms / 6.98Mb	—	

Nº	Вердикт	Ресурсы	Баллы
30	ok	383ms / 4.64Mb	—
31	ok	431ms / 5.58Mb	—
32	ok	385ms / 4.64Mb	—
33	ok	424ms / 4.89Mb	—
34	ok	392ms / 4.64Mb	—
35	ok	423ms / 4.64Mb	—
36	ok	399ms / 4.64Mb	—
37	ok	414ms / 4.64Mb	—
38	ok	397ms / 4.64Mb	—
39	ok	412ms / 4.64Mb	—
40	ok	394ms / 4.64Mb	—
41	ok	411ms / 4.64Mb	—
42	ok	393ms / 4.64Mb	—
43	ok	405ms / 4.64Mb	—
44	ok	392ms / 4.51Mb	—
45	ok	405ms / 4.64Mb	—
46	ok	388ms / 4.64Mb	—
47	ok	403ms / 4.64Mb	—
48	ok	388ms / 4.64Mb	—
49	ok	402ms / 4.64Mb	—
50	ok	389ms / 4.64Mb	—
51	ok	398ms / 4.64Mb	—
52	ok	392ms / 4.64Mb	—
53	ok	397ms / 4.64Mb	—
54	ok	398ms / 4.64Mb	—
55	ok	396ms / 4.64Mb	—
56	ok	403ms / 4.64Mb	—
57	ok	404ms / 4.64Mb	—
58	ok	396ms / 4.64Mb	—
59	ok	399ms / 4.64Mb	—