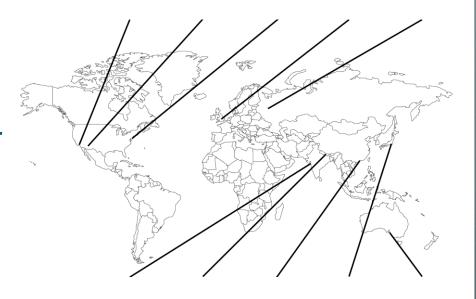
Tony Wong 2016-01-22

Task Description

- Given 10 different time zones.
- Convert a time from one to another
- 04:08 PST into 20:08 HKT



Subtasks

```
Points Constraints
       Time zone A is PST.
15
       Time zone B is not IST, NPT nor ACDT.
13
       Time zone A is PST.
       Neither time zones is IST, NPT nor ACDT.
26
22
       Neither time zones is NPT.
24
       No additional constraints
```

Statistics

- **o** 100: 41
- o 76: 3
- o 41: 7
- **o** 54: 3
- **o** 28: 6
- **o** 15: 6
- **o** 0: 9
- o No Attempt: 8

• First solve by Lam Kin Long @ 0:19:28

24

Common Mistakes

o Those who fail to handle borrowing (退位) for *Hour* will fail subtasks 3, 4, 5

```
Points Constraints

1 15 Time zone A is PST.
Time zone B is not IST, NPT nor ACDT.

2 13 Time zone A is PST.

3 26 Neither time zones is IST, NPT nor ACDT.

4 22 Neither time zones is NPT.
```

No additional constraints

 Those who fail to handle borrowing for *Minutes* will fail subtasks 4, 5

Incorrect borrowing

- o Check *Hour* before *Minutes*
- Result:
 - 23:67 becomes 24:07

```
if (h < 0) {
  h += 24;
if (h >= 24) {
  h -= 24;
if (m < 0) {
  m += 60;
  h--;
if (m >= 60) {
  m -= 60;
  h++;
```

Implementation

 Write a function to return number of minutes relative to PDT

- Subtract Time Zone A
- Add Time Zone B

```
4□ int diff(char* s) {
    if (s[0] == 'P') return 0;
    if (s[0] == 'E') return 60 * 3;
    if (s[0] == 'G') return 60 * 8;
    if (s[0] == 'I') return 60 * 13 + 30;
    if (s[0] == 'N') return 60 * 13 + 45;
    if (s[0] == 'H') return 60 * 16;
    if (s[0] == 'J') return 60 * 17;
    if (s[0] == 'A') return 60 * 18 + 30;
    if (s[2] == 'T') return 60;
    return 60 * 11;
}
No need to handle
```

```
int main() {
    int h, m;
    scanf("%d %d %s %s", &h, &m, s, t);
    int x = h * 60 + m + 60 * 24;
    x -= diff(s);
    x += diff(t);
    printf("%02d %02d\n", x / 60 % 24, x % 60);
    return 0;
}
```

More Statistics

- o Pascal: 19
 - Min: 32 lines Median: 66 lines Max: 151 lines
- o C/C++: 22
 - Min: 29 lines Median: 61 lines Max: 123 lines
 - Shortest code by Lai Wing Yin