
Problem of the Week

Solution Ten

I started two watches at the same time and found that one of them went two minutes per hour too slow and the other went one minute per hour too fast. When I looked at them again, the faster one was exactly one hour ahead of the other. How long had the watches been running?

SOLUTION: The simplest way to look at this is as follows: Since one watch is one minute fast, while the other is two minutes slow, we see that after one hour the fast watch will be three minutes ahead of the slow watch. Likewise, after two hours, the fast watch will be six minutes ahead of the slow watch. After each hour, the fast watch is an additional three minutes ahead of the slow watch. It follows that after twenty hours the fast watch will be sixty minutes ahead of the slow watch, and that is the answer.