

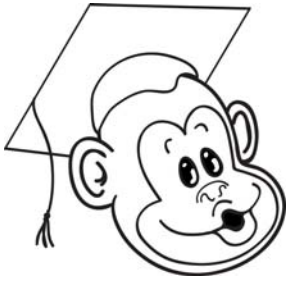


This brainteaser was written by Derrick Niederman.

Starting at 12:00 midnight, you wait a number of minutes that is a perfect square and then look at a digital clock. The number you see (with the colon removed) is also a perfect square.

What is the first time after midnight that this happens?





Solution: 12:25.

It's tempting to think that the first time after midnight is 1:21am, or 81 minutes after midnight. Of course, $81 = 9^2$, whereas 121 is 11^2 . But there's another possibility: after just $5^2 = 25$ minutes, the clock will read 12:25, and $1,225 = 35^2$.

This phenomenon occurs at 12:25 and 1:21, as shown above, but it will also occur at many other times in the future. At $39^2 = 1521$ minutes past midnight, the clock will read 1:21am the following day; at $55^2 = 3025$ minutes past midnight, the clock will read 2:25am two days later; at $81^2 = 6561$ minutes, the clock will read 1:21pm four days later; and so on.