How can I test the timekeeping of my mechanical watch?

The only correct way to accurately time a mechanical watch is to use a watchmaker's timing device.

That being said, we use a "Seven Day Test" to approximate the results of a timing device. Here are the instructions for that test:

1. Set the watch to an exact time using a computer clock or smartphone.
2. Wind the watch fully by hand, turning the crown in a clockwise direction 45 to 60 turns (if the watch is manual winding use the lower number).
3. Wear the watch each day if possible.
4. At night, set the watch down in a different position (left side up, right side up, face down, face up).
5. Wind the watch another 45 to 60 turns by hand every other day during the test.
6. If the watch has a chronograph function, "exercise" this function during the test by periodically starting, stopping and resetting the chronograph.
7. At the end of exactly 7 days, note the total deviation of the timekeeping in seconds. If your total is +/- 105 seconds or less, you are within generally accepted tolerances, although most mechanical watches will exceed the specifications of this test.

Please note that if you have recently seen a dramatic change in the timekeeping of your watch, this can often be an indication that the watch has become magnetized. In addition to dramatic changes in timekeeping, magnetism can also cause some watches to "gallop", literally gaining minutes per hour.
In this case, the watch should be demagnetized by a professional watchmaker.

Can my mechanical watch become magnetized?