The GAMESS distribution contains a number of short input examples:

a) in a source code distribution, see
   ~/gamess/tests/standard/exam*.inp

b) in a binary distribution for Apple Macintosh, see
   ~/gamess/tests/standard/exam*.inp

c) in a binary distribution for Windows, see
   C:\gamess.64\tests\exam*.inp    (or C:\gamess.32)

Please see the summary table below to note what kinds of calculations are included.

The primary usage of these input files is to introduce the basic functionality of the program. Running all of these, and noting where in the log file the key results contained in comments in the input files appear should introduce the basics to a new user. After that, explore the more exotic keywords in the previous chapter, for the number of examples in the test packet is deliberately kept small, and each run is relatively simple.

Secondarily, running these tests serves as a simplistic verification of the program's correct installation. In source code distributions, only, there is a script to check the numerical results, see

~/gamess/tests/standard/checktst

to automatically check all results. Binary distributions can do this by hand, since the expected results are contained in the input files. Note that to keep the tests small, the memory and CPU time required is trivially small. This means that problems that might occur in larger runs won't be detected, and that these tests are entirely inappropriate for parallel execution.

The examples are:

<table>
<thead>
<tr>
<th>Example</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CH2 RHF geometry optimization</td>
</tr>
<tr>
<td>2</td>
<td>CH2 UHF + gradient</td>
</tr>
<tr>
<td>3</td>
<td>CH2 ROHF + gradient</td>
</tr>
<tr>
<td>4</td>
<td>CH2 GVB + gradient</td>
</tr>
</tbody>
</table>
The following will refuse to run in parallel:
5 - CI gradient is not enabled for parallel execution
23,25,27 - MOPAC is not enabled for parallel execution
32,42,45,46,47 - only RHF-based CCSD/CCSD(T) is parallel
39 - RUNTYP=TDHFX is not enabled for parallel execution