Astronomy 102
Background Survey – September 2, 2003

Class of ___________________________  Major ___________________________

Please indicate your proficiency in several mathematical areas by indicating whether you are Uncomfortable, Content, Comfortable, and Expert in each of the following areas:

1. Arithmetic
   - Uncomfortable
   - Content
   - Comfortable
   - Expert

2. Units and unit conversion
   - Uncomfortable
   - Content
   - Comfortable
   - Expert

3. Scientific number notation
   - Uncomfortable
   - Content
   - Comfortable
   - Expert

Please continue on other side
4. Algebra
   - Uncomfortable
   - Content
   - Comfortable
   - Expert

5. Geometry
   - Uncomfortable
   - Content
   - Comfortable
   - Expert

6. Reading and drawing graphs
   - Uncomfortable
   - Content
   - Comfortable
   - Expert

7. Trigonometry
   - Uncomfortable
   - Content
   - Comfortable
   - Expert
Consider the following 4 statements. For each statement, indicate whether you consider the statement (1) an accepted scientific fact, (2) possibly true but unverified, (3) false but couched in scientific-sounding terms, or (4) nonsense.

1. One could travel to the nearest stars faster than light, or travel backwards through time, by taking shortcuts through hyperspace.
   - An accepted scientific fact
   - Possibly true but unverified
   - False but couched in scientific-sounding terms
   - Nonsense

2. The Universe began with an explosion, setting all of its contents into an outward expansion that persists to this day.
   - An accepted scientific fact
   - Possibly true but unverified
   - False but couched in scientific-sounding terms
   - Nonsense

3. There are canals on Mars, we believe. Where there are canals, there is water; where there is water, there is oxygen; where there is oxygen, we can breathe.
   - An accepted scientific fact
   - Possibly true but unverified
   - False but couched in scientific-sounding terms
   - Nonsense
4. One's destiny is determined by the relative positions in the sky of the stars, planets, Sun and Moon at the moment of one's birth.

☐ An accepted scientific fact
☐ Possibly true but unverified
☐ False but couched in scientific-sounding terms
☐ Nonsense