

ASTR 101 — Homework Rubric (1–5 Scale)

Use this to grade each problem in your Grade Memo

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Per-Problem Scoring

Use this scale to grade **each** homework problem in your Wednesday Grade Memo.

| Score | What It Means | Examples |
|-------|---|--|
| 5 | Correct + scientifically clear | Correct result, clear reasoning, units consistent, assumptions stated, work readable and organized |
| 4 | Essentially correct, minor issues | Right method and answer, but small algebra slip, missing brief explanation, or unclear step |
| 3 | Partially correct, meaningful gaps | Some correct reasoning but significant mistakes — wrong setup, incomplete solution, inconsistent units |
| 2 | Attempted, mostly incorrect | Real attempt shown, but approach is wrong — incorrect model, major conceptual error, steps don't connect |
| 1 | Minimal progress | Too little work to evaluate, or too incomplete/unclear to score |
| 0 | No attempt | Nothing submitted for this problem |

The Golden Rule

Score based on visible reasoning. If your reasoning isn't shown, it can't earn a high score — even if your final answer is correct.

What “Show Your Work” Means

For full credit, your solutions should include:

1. **Setup** — What are you solving for?
 2. **Knowns/Unknowns** — What values do you have? What’s missing?
 3. **Equations or reasoning** — Why are you doing what you’re doing?
 4. **Units at every step** — Units are error-checking, not decoration
 5. **Labeled final answer** — Box or circle it
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Common Error Types

When something goes wrong, identify **which type** of error it was:

| Error Type | What It Means |
|-----------------------|--|
| Units | Wrong units, missing units, or didn’t convert properly |
| Algebra | Math mistake (arithmetic, solving equations, etc.) |
| Concept | Misunderstood the physics or astronomy idea |
| Sign | Positive/negative error |
| Assumptions | Used wrong model or made invalid assumption |
| Interpretation | Got a number but didn’t explain what it means |

Be Honest

Self-grading isn’t about giving yourself a high score. It’s about **accurate self-assessment**:

- If you guessed and got lucky → that’s a 2 or 3, not a 5
- If you showed clear reasoning but made a small slip → that’s a 4
- If you have no idea whether your answer is right → say so

Honest reflection is worth more than a padded score.