AI Answer Comparison Experiment - Can a correct answer still be incomplete?

AI tools can answer the same question differently—even when they're working from the same prompt.

This little experiment is a way to practice noticing those differences.

You don't need a complicated prompt or a subject you know nothing about. In fact, we're going to start with something very simple: **Is the sky really blue?**

AI Tools I Used

At the time I ran this experiment (**October 4, 2026**), the following AI tools allowed me to submit this prompt without creating an account or providing an email address.

Duck.ai **ChatGPT.com** **Chat-box.ai**

Online tools change frequently. Sign-in requirements, free access, features, and underlying AI models may change after this printable is published, so check the current requirements before you begin. For a fairer comparison, start a fresh session in each tool, use a private browsing mode such as Incognito or InPrivate mode, and don't ask follow-up questions until you've saved or compared the first responses.

Using private browsing helps reduce the influence of an existing login, account history, or previous conversations. It doesn't make you completely anonymous online; we're simply using it here to create a cleaner starting point for the comparison.

Copy and paste **exactly the same prompt** into each one:

> **Is the sky really blue? Give your answer and explain the reasoning behind it. Then explain any limitations, exceptions, or ways your answer could be misleading or incomplete.**

Don't worry about deciding which AI gave the "best" answer yet. First, just compare.

What Did You Notice?

As you read the three responses, consider:

- Did all three give the same basic answer?
- What explanation did each one provide?
- Which qualifications or exceptions did each include?
- Did one include information the others left out?

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- Did any of them make a claim the others didn't?
- Which answer sounded the most confident?
- Was the most confident answer necessarily the most complete?
- Was the longest answer necessarily the best?
- Did any answer use technical terms the others didn't?
- Did anything make you think, **"Wait—is that actually true?"**
- What would you want to verify independently?

Go One Step Further

Choose **one claim** from any of the answers.

It doesn't have to be something you think is wrong. Pick something specific enough that you could check it independently.

The claim I chose:

Why I chose it:

Where could I verify it?

What I found:

What Happened When I Tried It

When I ran this experiment, the AI tools mostly agreed on the basic answer: **under ordinary daytime conditions, the sky appears blue because of the way sunlight interacts with Earth's atmosphere.**

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But they didn't give identical answers.

Some stayed fairly close to the surface. Others explained more of the underlying science or included additional qualifications and exceptions. One included a small detail that I wouldn't want to repeat as fact without doing some additional verification.

And that's the point.

None of this required catching an AI making some spectacularly ridiculous mistake.

Sometimes the difference is much quieter.

One answer includes context another doesn't. One makes an additional claim. One simplifies something complicated. One sounds extremely certain about something you haven't actually verified.

The AI Literacy Habit

When an AI gives you an answer, you don't always need to launch a research project.

But when the information matters, try:

ASK → COMPARE → NOTICE DIFFERENCES → QUESTION → VERIFY

The goal isn't to distrust everything AI tells you.

It's to remember that **you are still part of the thinking process.**

Keep experimenting—the more you practice questioning, comparing, and verifying AI responses, the better you'll get at noticing when something deserves a closer look.

Once you've tried the sky experiment, choose a simple question of your own—preferably something you already know a little about. Run the same prompt through three AI tools and see what you notice.

My question:

What I think the different AI tools will disagree on:

My observations on their responses:

Additional Tips for Working With AI

- **Don't be afraid to question the AI.** You aren't being rude! If something doesn't look right, say so and ask it to explain or reconsider its answer. **AI is not offended when you disagree with it.**

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- **Ask clarifying and follow-up questions.** You don't have to get the perfect prompt on your first try. A conversation can help you narrow down what you're actually trying to learn.
- **Ask it to review its own work.** Try: *"Review your answer for errors, unsupported claims, or anything you may have oversimplified."* This can catch mistakes—but it isn't a substitute for independent verification.
- **Ask for sources when facts matter.** Then actually check the sources. A citation isn't proof by itself: make sure the source exists, is reliable, and supports the claim being made.
- **Tell the AI when you want factual information rather than guesses.** You can ask it to distinguish established facts from estimates, interpretations, assumptions, or uncertainty. But remember: asking for "facts only" doesn't guarantee a mistake-free response.
- **Tell it when you don't know what something means.** You can ask it to explain a technical term, simplify an explanation, give an example, or explain something another way.
- **Give it permission to say it doesn't know**. For example: *"If you're uncertain or don't have enough information, tell me rather than guessing."* That still doesn't guarantee it won't guess, but it's a useful instruction.
- **Watch for answers that merely *sound* right.** Clear writing, technical language, detail, and confidence can make an answer feel authoritative. None of those things prove that it's correct.
- **Use your own knowledge**. If the AI says something that conflicts with something you already know, don't automatically assume the AI knows better. That's a reason to investigate.

A little AI literacy in action:

I originally asked AI to help me find tools that could be used without creating an account. Some of the suggestions no longer offered that option when I checked them. I had to verify the recommendations and find another tool myself.

Which is rather appropriate for an activity about verifying AI answers. 😂

Timing Matters

Try asking the same question again in a few months. Do you get the same answer?

Information changes. AI tools and models change. And sometimes an AI may interpret your question differently.

For example, one of the AI tools I tried pointed out that **"really blue"** could have several meanings. I intended *really* to mean *actually* or *truly*—but it could also be interpreted as asking whether the sky is *very* blue or *extremely* blue.

I hadn't even considered that interpretation when I wrote the question.

That's another useful thing to notice: **the words in your question can influence the answer in ways you didn't intend.**

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