**ChatGPT Suggestions for Tides Assignment**

**Update to Make this Assignment AI-Resistant:**

1. **Find** a location and tide data for a multi-day period of time. Interview a local fisherman or marine biologist about how tides impact their work and document their responses.
2. **Find** the equation of your tides. (Calculate: amplitude, period, phase shift, and vertical shift.) Use the Tides Calculation Sheet and show your work.
3. **Print** the actual data from the website for your dates. This must match your equation, so print before you calculate!
4. **Convert** the times to hours past midnight and complete the data table below.
5. **Graph** your data and equation on your graphing calculator to check your accuracy.
6. **Predict** the height of your tide for 12 hours after the last high or low tide data (depending on your data set) using your equation. Please give the x-value you used, complete the predictions in the data table below, and show your calculations on the Calculation Sheet.
7. **Turn in** the Tides Data Sheet, Calculation Sheet, and actual data printed from the website. Include a summary of your interview and discuss how the interviewee's insights compare with your calculations.

**Explanation:** This change requires students to conduct an interview and integrate qualitative data into their analysis, which is something AI cannot easily replicate. This pushes students to apply their understanding in a real-world context and synthesize information from multiple sources.

**Update to Make this Assignment AI-Resistant:**

1. **Find** a location and tide data for a multi-day period of time. Visit the location and take photographs or videos documenting the tides at different times of the day.
2. **Print** the actual data from the website for your dates. This must match your equation, so print before you calculate!
3. **Convert** the times to hours past midnight and complete the data table below.
4. **Find** the equation of your tides. (Calculate: amplitude, period, phase shift, and vertical shift.) Use the Tides Calculation Sheet and show your work.
5. **Graph** your data and equation on your graphing calculator to check your accuracy.
6. **Predict** the height of your tide for 12 hours after the last high or low tide data (depending on your data set) using your equation. Please give the x-value you used, complete the predictions in the data table below, and show your calculations on the Calculation Sheet.
7. **Turn in** the Tides Data Sheet, Calculation Sheet, and actual data printed from the website. Include your photographs or videos and a short essay on how the visual evidence supports or contradicts your calculations.

**Explanation:** This modification adds a requirement for direct observation and multimedia documentation, which AI cannot easily generate. Students need to synthesize visual and numerical data, enhancing their critical thinking and observational skills.

**Update to Make this Assignment AI-Resistant:**

1. **Find** a location and tide data for a multi-day period of time. Analyze how historical events (such as storms, tsunamis, or human activities) have affected tide patterns at your chosen location and include this in your report.
2. **Print** the actual data from the website for your dates. This must match your equation, so print before you calculate!
3. **Convert** the times to hours past midnight and complete the data table below.
4. **Find** the equation of your tides. (Calculate: amplitude, period, phase shift, and vertical shift.) Use the Tides Calculation Sheet and show your work.
5. **Graph** your data and equation on your graphing calculator to check your accuracy.
6. **Predict** the height of your tide for 12 hours after the last high or low tide data (depending on your data set) using your equation. Please give the x-value you used, complete the predictions in the data table below, and show your calculations on the Calculation Sheet.
7. **Turn in** the Tides Data Sheet, Calculation Sheet, and actual data printed from the website. Include an analysis of how historical events have influenced tide patterns and discuss any anomalies you found in your data.

**Explanation:** By incorporating historical analysis, students are required to research and understand the broader context of their data. This adds a layer of complexity that AI would struggle to replicate, ensuring that students engage in deeper cognitive processes.