

## Post “Mock AFM” Questions

- 1) Using Excel to help visualize your data, make an inference about the surface you were probing. Describe any surface features or patterns (*or lack of pattern*) inferred.
  
  
  
  
  
  
  
  
  
  
- 2) Describe how the surface was “observed”.
  
  
  
  
  
  
  
  
  
  
- 3) If the same surface were raised or lowered within the box, what would change about your observations?
  
  
  
  
  
  
  
  
  
  
- 4) What would stay the same?
  
  
  
  
  
  
  
  
  
  
- 5) Would this change your inferences?

Name: \_\_\_\_\_ Teacher/Period: \_\_\_\_\_ Date: \_\_\_\_\_

- 6) What if the surface was tilted within the box?
  
- 7) From the given choices, determine which surface was most likely in your box.  
Compare the actual surface to your inferred surface.
  
- 8) A) Were your inferences valid?  
B) Did your observations “miss” any features?  
C) How can you explain these differences?
  
- 9) Were there any trade-offs for increasing the resolution of your mock AFM?
  - a) What did you gain?
  - b) What new issues or limitations did you encounter?
  
- 10) Thinking about other instruments you’ve seen or used, describe at least two other types of proxy variables & how they are utilized to take measurements.
  
- 11) If you had another box to measure, what would you do differently?