Regents Earth Science
The Gotham Equinox

Name _____

Period_____

Go to http://antwrp.gsfc.nasa.gov/apod/image/0405/nycsunset_tyson.jpg It is a photograph taken at sunset looking along 34th Street in midtown Manhattan (New York City). Notice that the setting sun is perfectly aligned with the long, straight street.

Now take a look at http://maps.google.com/maps?ll=40.744995,-73.976581&spn=0.058472,0.116751&hl=en It is a map of Manhattan, centered on the spot where the photo was taken. (you can click "Satellite" in the upper right hand corner of the map for a zoom-able satellite image, too!)

Notice the orientation of the crosstown streets on the map, and answer the following questions:

1. What direction was the photographer facing as he took the picture?

_____

2. Around what date (or dates) could the photograph have been made? EXPLAIN how you know!

_____

_____

_____

_____

3. Read the paragraph at http://antwrp.gsfc.nasa.gov/apod/ap040528.html (an Astronomy Picture of the Day), and if you didn't already list and explain 2 possible dates near those mentioned in the article, explain now why the sun lines up the way it does in late May and mid-July.

_____

_____

_____

_____

4. On what days of the year does the rising Sun line up with 34th Street? EXPLAIN!

_____

_____

_____

_____

5. Some New Yorkers call the 4 days of the year that the rising or setting Sun aligns with the crosstown streets the "Gotham Equinoxes" ("Gotham" is a nickname for New York). Explain why the term Equinox not a good one to describe those dates?

_____

_____

_____

_____