

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Astron 211 OOM #5

### Kinetic Energy

**OOM Policy:** You can work in pairs or groups of 3 if desired. You can consult class notes and books — no phones or computers. Make sure you are clear about the process you use to solve the problems: partial credit will be awarded. Always include units.

The continent of North America is drifting at a rate of about 1 cm per year. Estimate the kinetic energy the continental US has a result.

1. What are the dimensions of the continental US in km?
2. What is the mass of the continental US in kg?
3. What is the kinetic energy in J?
4. If this kinetic energy were instead used to lift up the US, how high would it be lifted?