

**INSTRUCTIONS:**

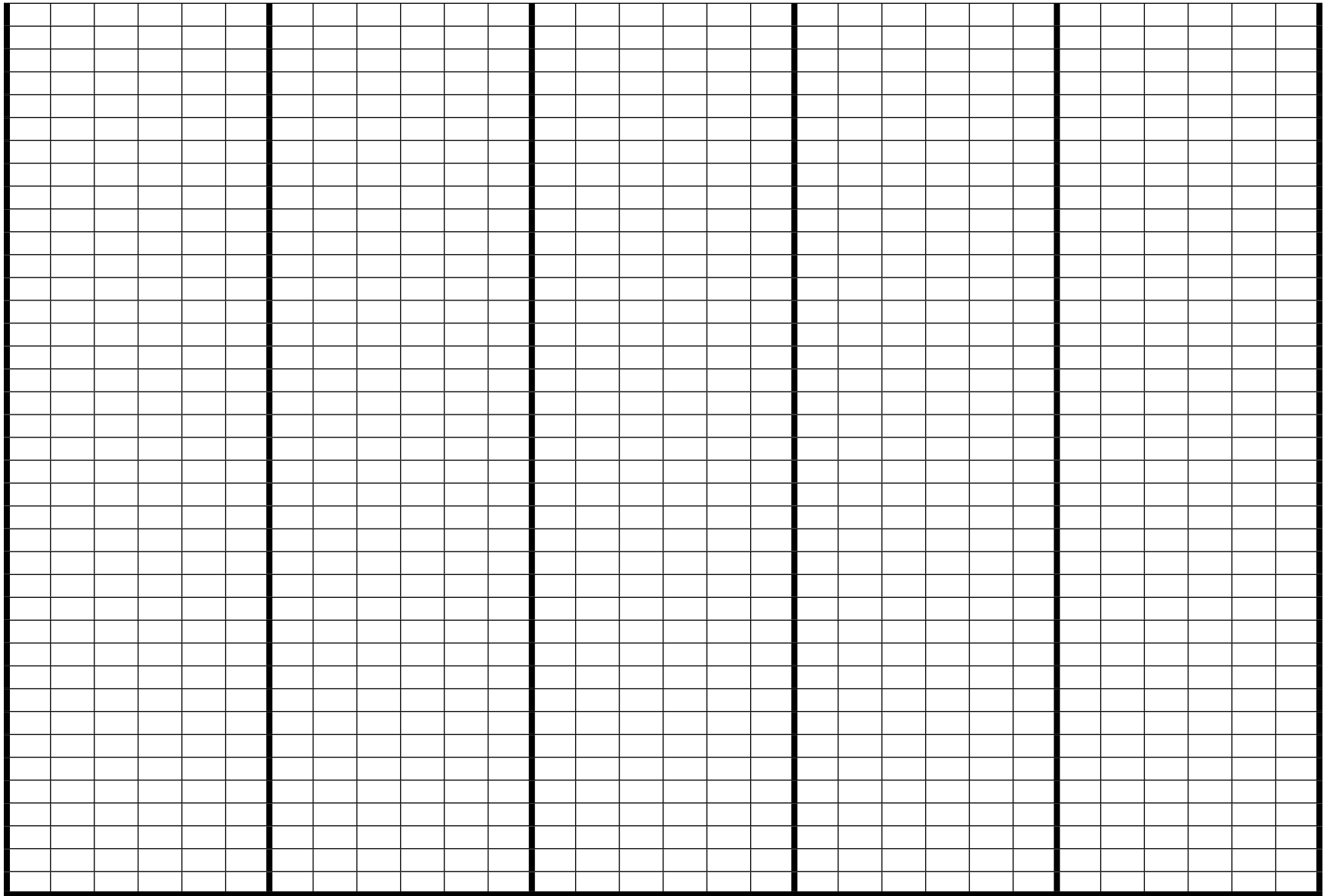
Draw two line graphs on the axis provided on the next page. Using one color graph the tidal height for the Bay of Fundy and with another color, plot the tidal heights at Mamaroneck. Be sure to write in the axis labels using the appropriate scale. Mark the colors of each line in the key on the bottom right corner of the graph. When your graph is complete, work on the questions on the following page.

| Bay of Fundy, Canada |          |                   |
|----------------------|----------|-------------------|
| Date                 | Time     | Tidal Height (ft) |
| Dec 1, 2007          | 3:55 AM  | 38.1              |
|                      | 10:23 AM | 7.5               |
|                      | 4:19 PM  | 38.1              |
|                      | 10:52 PM | 6.9               |
| Dec 2, 2007          | 4:54 AM  | 37.1              |
|                      | 11:21 AM | 8.5               |
|                      | 5:19 PM  | 36.7              |
|                      | 11:50 PM | 8.2               |
| Dec 3, 2007          | 5:52 AM  | 36.4              |
|                      | 12:21 PM | 8.9               |
|                      | 6:19 PM  | 35.8              |
| Dec 4, 2007          | 12:47 AM | 8.9               |
|                      | 6:48 AM  | 36.1              |
|                      | 1:19 PM  | 9.2               |
|                      | 7:15 PM  | 35.4              |
| Dec 5, 2007          | 1:43 AM  | 9.5               |
|                      | 7:39 AM  | 36.1              |
|                      | 2:14 PM  | 8.9               |
|                      | 8:07 PM  | 35.1              |

| Mamaroneck Harbor, USA |          |                   |
|------------------------|----------|-------------------|
| Date                   | Time     | Tidal Height (ft) |
| Dec 1, 2007            | 5:06 AM  | 7                 |
|                        | 11:23 AM | 0.8               |
|                        | 5:34 PM  | 6.8               |
|                        | 11:51 PM | 0.7               |
| Dec 2, 2007            | 6:07 AM  | 7.1               |
|                        | 12:24 PM | 0.8               |
|                        | 6:36 PM  | 6.7               |
| Dec 3, 2007            | 12:46 AM | 0.8               |
|                        | 7:02 AM  | 7.2               |
|                        | 1:20 PM  | 0.6               |
| Dec 4, 2007            | 7:32 PM  | 6.7               |
|                        | 1:38 AM  | 0.8               |
|                        | 7:53 AM  | 7.3               |
| Dec 5, 2007            | 2:13 PM  | 0.4               |
|                        | 8:23 PM  | 6.7               |
|                        | 2:25 AM  | 0.8               |
|                        | 8:40 AM  | 7.4               |
| Dec 5, 2007            | 3:01 PM  | 0.2               |
|                        | 9:10 PM  | 6.7               |

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_ Lab #: \_\_\_\_\_

TIDAL HEIGHT (feet)



|             |             |             |             |             |
|-------------|-------------|-------------|-------------|-------------|
| Dec 1, 2007 | Dec 2, 2007 | Dec 3, 2007 | Dec 4, 2007 | Dec 5, 2007 |
|-------------|-------------|-------------|-------------|-------------|

DAY and TIME

**KEY**  
**MAMARONECK:**  
**BAY OF FUNDY:**

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_ Lab #: \_\_\_\_\_

CIRCLE YOUR CHOICE

1. What type of relationship exists between tides and time?      DIRECT      INDIRECT      CYCLIC      STATIC
2. What celestial object(s) cause the tides?      SUN      MOON      TERRESTRIALS      SUN and MOON
3. What force causes the tides?      FUSION      VELOCITY      GRAVITY      DECAY
4. A higher than usual tide is called a:      NEAP TIDE      SPRING TIDE      GRAVITY TIDE      CYCLIC TIDE
5. Neap tides are caused primarily by gravity from the \_\_\_\_\_ only.      MOON      SUN      SUN and MOON      MARS
  
6. A student recorded the times of three successive high tides at one location as: 9:12 a.m., 9:38 p.m., 10:04 a.m.. What is the approximate time of the next high tide?
  - A) 11:04 p.m.
  - B) 10:38 p.m.
  - C) 10:12 p.m.
  - D) 10:30 p.m.
  
7. The Moon has a greater effect on the Earth's ocean tides than the Sun has because the
  - A) Moon is closer to the Earth than the Sun is
  - B) Sun has a higher temperature than the Moon
  - C) Moon has a greater mass than the Sun
  - D) Sun has a higher density than the Moon
  
8. What are the two possible moon phases for a spring tide to occur? \_\_\_\_\_
9. What are the two possible moon phases for a neap tide to occur? \_\_\_\_\_