

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

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

Section: \_\_\_\_\_

## Astron 104 Laboratory #9

### Gravity and Black Holes

#### Note

For the section **Black Holes: Abandon All Hope, Ye Who Enter Here!**, replace the question:

The radius  $R$  when  $v_{\text{esc}} = c$  has a special name: the **event horizon**. If a spacecraft were to cross inside the event horizon, could it reverse course and fly away? Explain.

with

The radius  $R$  where  $v_{\text{esc}} = c$  has a special name: the **event horizon**. Einstein's theory tells us that, once past an event horizon, not only can an object not escape to infinity, but it cannot even get back out of the event horizon!