

Black Holes, Problem Set 14 for Monday, Nov. 25

Reading from *Exploring Black Holes*

You don't have a lot left to go in Chapter 3 (pp. 3-19 to 3-26). And Sample Problem 2 and Sample Problem 3 on those pages have already been presented.

I was thinking we would skip Chapter B, so we could get on with orbiting after the Shakespeare festival, but it is far too good to skip!

So launch into Chapter B and study the first half of it, which will take you all the way to the bottom of page B-13.

In summary, the new reading is from 3-19 to B-13.

Presentation

If a group of you wants to make a presentation, I have identified another problem that looks pretty interesting. Come talk to me.

For Problem Set 14

Problem 1 — *EBH* Problem 5, The Fastest Possible Stone, p. 3-29

Problem 2 — *EBH* Problem 6, Converting Garbage to Energy, p. 3-29

Problem 3 — *EBH* Problem 7, Dropping a Wrench, p. 3-30

Continued on next page.

Problem 4 — An Inquiry About the New Reading, pp. 3-19 to B-13

Name: _____

In the space below, or on a separate clean sheet of paper, write down a serious question you have about the new reading from p. 3-19 to p. B-13.

Make sure your question is well enough formulated that it amounts to what would be experienced by a specific observer in a specific situation, or what would be recorded by a bookkeeper. Notice that every one of Taylor and Wheeler's explorations is formulated this way, and this is the way they avoid making conceptual errors and the trap of asking questions of an unanswerable nature. Physicists care about what can be observed and recorded.