

Dear Students,

When you look at the practice exam solutions, you might notice that the gravity-tunnel proof is *very long*.

Here's the bad news:

None (or very little) of this proof will be provided. Be prepared to recreate *the whole thing* yourself on the exam.

But here's the good news:

(1) There will be no surprises.

The proof on the actual exam will be exactly the same as the one on the practice exam, and the other questions will vary only SLIGHTLY.

(2) That proof will be MOST of the exam.

Like, 65-75%.

You should plan to spend about an hour on it.

So study it hard.

But do NOT try to memorize it.

That would be impossible—and pointless.

Try to *understand* it.

Talk to your fellow students or email me if you need help.

Your proof does NOT need to be *identical* to mine.

You should state things in your own words.

You may combine two of my steps into one or split one of my steps into two.

That's all fine.

If your proof is clear & complete & makes sense, you will get full credit.

In order to be clear & complete, it will need to be *about* as long as the proof from the practice exam solutions.

Also, please note: YOU have to come up with justifications for all the steps that I left blank in the solutions.

May the physics spirits smile upon you!

-mb