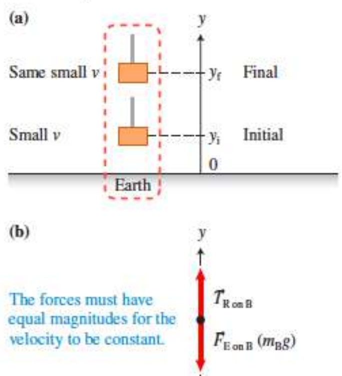
In these times the students need to work with a textbook more. Luckily, our textbook is written as a conversation with a reader, so it will not be difficult once they get a hang of it. Below I posted a message for the students teaching them the method of reading that we all use but rarely think about it. Please use!

Below are instructions on how to work with the textbook. The method is called interrogation. Here is an example of your interrogation of the following text (p. 186, Section 7.3 Quantifying gravitational potential and kinetic energies):

FIGURE 7.3 Lifting a box at a negligible constant speed.



Imagine that a rope lifts a heavy box upward at a constant negligible velocity (Figure 7.3a). The rope is attached to a motor above, which is not shown in the figure. First, we choose only the box as the system and apply Newton's second law to find the magnitude of the force that the rope exerts on the box. Since the box moves up at constant velocity, the upward tension force $\vec{T}_{R\ on\ B}$ exerted by the rope on the box is equal in magnitude to the downward gravitational force $\vec{F}_{E\ on\ B}$ exerted by Earth on the box (see the force diagram in Figure 7.3b), $m_B g$, we find that the magnitude of the tension force for this process is $T_{R\ on\ B} = m_B g$.

To derive an expression for gravitational potential energy, we must change the boundaries of the system to include the box and Earth (if Earth is not included in the system, the system does not have gravitational potential energy). The origin of a vertical y-axis is the ground directly below the box with the positive direction upward. The initial state of the system is the box at position y_i moving upward at a negligible speed $v_i \approx 0$. The final state is the box at position y_f moving upward at the same negligible speed $v_f \approx 0$. According to work-energy Eq. (7.3),

$$E_i + W = E_f$$

You read the first sentence: *Imagine that a rope lifts a heavy box upward at a constant negligible velocity (figure 7.3a).* You tell yourself: "Aha, if they say constant negligible velocity, it means that kinetic energy does not change and it actually does not matter, this is what negligible means. Why would they do it at constant velocity? Maybe they want to simplify the process. Now, where is this figure 7.3a – oh, it is on the left. I see the box, and they labeled everything nicely. Oh, and I see the system boundary, I bet they will say later that the box and Earth are the system. And the axis points up, maybe I will need it later, I will remember that for now." After this silent conversation with yourself you proceed to the next sentence: *The rope is attached to a motor above, which is not shown in the figure.* You tell yourself: Well, if they do not show the motor, it will be external to the system, I bet it will do work on the system!" You continue reading: *First we choose only the box as a system and apply Newton's second law to find the magnitude of the force that the rope exerts on the box. Since the box moves up at constant velocity, the upward tension force* $\vec{T}_{\mathrm{R\ on\ B}}$ *exerted by the rope on the box is equal in magnitude to the downward gravitational force* $\vec{F}_{\mathrm{E\ on\ B}}$ *exerted by Earth on the box (see the force diagram in Figure 7.3 b), mg, we find that the magnitude of the tension force in this process is* $T_{\mathrm{R\ on\ B}} = mg$. You tell yourself: "Hmm, they did not choose the system I thought they would. But the force diagram makes sense. If Earth was in that system, we would not put the force it exerts on the box on the diagram and we would not be able to figure out what the force that the cable exerts is. But why do we need this force if we are trying to figure out the mathematical relation for gravitational potential energy? I guess I do not understand it yet, let me read on."

The above example shows you how experts think when they are reading texts like this. This kind of thinking is almost intuitive as they engage in it every day. So, for you to learn from the textbook (a skill vital in any job you will hold later), you need to learn to do this when you are reading the textbook.

The exercise below is an example of an exercise you might do with your students when you are in a in-person class or doing synchronous instructions online. Below is the scenario:
Take 20 min of your class to model to them how you read the textbook. Specifically, choose two paragraphs for this exercise from the chapter that they just worked on. Give them a minute to read the first sentence and then read it aloud and say what you are thinking about every work and logical connections. For example, on page 574 in the textbook we have a section: Fluid flow and charge flow. The first sentence in the section reads: "A fluid flow analogy may help us better understand the electric potential difference and conduction pathways of these electrical processes." Let your students read it and then say to them: "Hm, analogy - what does this word mean? analogy is when we try to explain something new using something that we already understand. They are telling us that if we understand how fluids flow, we will understand the relationship between potential difference and how current flows. Do I understand what makes fluid flow? Fluid - something like water, right? So, what makes water flow from one place to another - or, it is pressure difference. I guess this is what we will learn in this section." This is what flies through your head when you read this one sentences. Will it fly through the heads of your students? It must - so show them how to think about this sentence. And then the next one, and then the next one. Do it for 2 paragraphs and then ask them to read the third one on their own and tell you what they think as they are reading it.