Print this template and write your solution in the spaces indicated. This is the paper you'll scan and upload for the first problem.

> A student is holding a spring scale in an elevator that is accelerating at 0.60 m/s². A book of mass 1.2 kg is suspended from the scale. The elevator is descending and coming to a stop at a floor. What is the scale reading?

Strategy: You'll need to decide what force the problem is asking you to find. The Spring Scale series of videos cover this situation as well as the method of solution.

Don't write in this column.	**Show your work in this column.**
Step 1. **Draw a picture of the situation.** Show the directions of the acceleration and velocity. Label these vectors ***a*** and ***v***. Remember that if an object is speeding up, velocity and acceleration are in the same direction, but when an object is slowing down, velocity and acceleration are in opposite directions.	
Step 2. Indicate the direction for ***+y.*** Select this to be in the same direction as the acceleration.	
Step 3. **List the givens and the goal**. Use standard symbols. You'll need to include a value that is not stated above but which you will have to use to complete the solution. (Hint: This value is a property of the Earth.)	**Givens:** **Goal:**
Step 4. **Draw a force diagram** Represent the object with a point, draw the force diagram, and label it in the usual way. Draw the force vectors with approximately correct relative lengths. In this case, they will *not* be the same length.	**Force diagram for** _______(state the object)

Step 5. Write the net force equations Write the net force equation in the form F_{net} = *Sum of Forces*, where you replace *Sum of Forces* with the algebraic sum of the force magnitudes. (Use force symbols only at this point.) Algebraic sum means that you need to precede the force magnitude with either a plus or minus sign depending on the direction of the force.	
Step 6. Apply Newton's 2nd Law. This means to substitute *ma* for F_{net}.	
Step 7. Solve algebraically for the unknown. Do this in symbols first. You'll end up with the unknown on the left side of the equal sign and an expression that includes givens on the right-hand side.	
Step 8. Substitute values and units and reduce to obtain the value of the unknown.	
Step 9. Check your answer. **Units** **Sign** **Sense**	