

## Problem Set 1

In physics, a common useful equation for finding the position  $s$  of a body in linear motion at a given time  $t$ , based on its initial position  $s_0$ , initial velocity  $v_0$ , and rate of acceleration  $a$ , is the following:

$$s = s_0 + v_0 t + \frac{1}{2} a t^2$$

Write code to declare variables for  $s_0, v_0, a$ , and  $t$ , and then write the code to compute  $s$  on the basis of these values.