| **Exercise 1.11** Select *Show Code Pad* from the *View* menu. This should display a new pane  next to the object bench in your main BlueJ window. This pane is the *Code Pad*. You can type  Java code here. | Initials |
| --- | --- |
| **Exercise 1.12** In the Code Pad, type the code shown above to create a person object and  call its **makeVisible** and **moveRight** methods. Then go on to create some other objects  and call their methods. |  |
| **Exercise 1.13** Open the *house* project. Create an instance of class **Picture** and invoke its  **draw** method. Also, try out the **setBlackAndWhite** and **setColor** methods. |  |
| **Exercise 1.14** How do you think the **Picture** class draws the picture? |  |
| **Exercise 1.15** Look at the pop-up menu of class **Picture** again. You will see an option labeled  *Open Editor.* Select it. This will open a text editor displaying the source code of the class. |  |
| **Exercise 1.16** In the source code of class **Picture**, find the part that actually draws the  picture. Change it so that the sun will be blue rather than yellow. |  |
| **Exercise 1.17** Add a second sun to the picture. To do this, pay attention to the field definitions  close to the top of the class. You will find this code:  **private Square wall;**  **private Square window;**  **private Triangle roof;**  **private Circle sun;**  You need to add a line here for the second sun. For example:  **private Circle sun2;**  Then write the appropriate code for creating the second sun. |  |
| **Exercise 1.18** *Challenge exercise* (This means that this exercise might not be solved  quickly. We do not expect everyone to be able to solve this at the moment. If you do, great.  If you don’t, then don’t worry. Things will become clearer as you read on. Come back to this  exercise later.) Add a sunset to the single-sun version of **Picture**. That is, make the sun go  down slowly. Remember: The circle has a method **slowMoveVertical** that you can use to  do this. |  |
| **Exercise 1.19** *Challenge exercise* If you added your sunset to the end of the **draw** method  (so that the sun goes down automatically when the picture is drawn), change this now. We  now want the sunset in a separate method, so that we can call **draw** and see the picture with  the sun up, and then call **sunset** (a separate method!) to make the sun go down. |  |
| **Exercise 1.20** *Challenge exercise* Make a person walk up to the house after the sunset. |  |