

- Describe everything you can think of about turtle's state:  
**The turtle is green and it is sitting towards the top left side of the world. It has moved 20 pixels ahead of where it originally was located. It's location is now 100, 180. The pen is also down.**
- Default X Location of Turtle objects:   320   Default Y Location of Turtle objects:   240
- The default world position is a fixed value.
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Turtle Method	Affects what properties of the turtle's state?
t.turn(35)	Direction turtle is facing
t.backward(50)	Changes the turtle's Y coordinate in a negative direction
t.hide()	Hides the turtle and makes it invisible
t.setColor(Color.blue)	Changes the turtle to have a blue appearance
t.setName("Karim")	Changes the turtle name to Karim
t.setHeading(45.0)	Changes the heading of the turtle to 45.0

5.

To find out:	Call this turtle method(s):
Whether the pen is down	t.isPenDown()
Whether the turtle is visible	t.isVisible()
How wide the turtle's pen is	t.getPenWidth()
What the turtle's name is	t.getName()
What direction the turtle is facing	t.getDirection()

- You should note that the names of the methods that allow you to find out about the state of the turtle all begin with either   is   or   get  .

7. There are eight lines of code where a 'literal' value is used (where a number or string is directly typed into the program). Find them all and list the line numbers here: **11, 12, 15, 25, 31, 32, 34, 38**
8. There are two objects in the program. What are they? \_\_\_final\_\_\_\_\_ and \_\_\_distance\_\_\_\_\_
9. There are two constants in the program. What are they? \_\_\_KARIM\_HOME\_X\_\_\_\_\_ and \_\_\_KARIM\_HOME\_Y\_\_\_\_\_
10. Right now, the starburst rays that are created are random lengths, up to 100 pixels long. What line of code controls how long each ray is? \_\_\_32\_\_\_\_\_.
11. What if you wanted to make your turtle draw lines that were a different length? What line would you have to change? \_\_\_34\_\_\_\_\_.
12. Describe what happens: **The program is reset and reverts back to the beginning**
- 13.

Object Name	Class
World w	World
Turtle ghost	Turtle
Turtle pacman	Turtle

14.

Line #	Object that requests info	Object that provides data	Data provided	Used for?
11	ghost	w	Width, the height of the world	To create the ghost turtle
13	Pacman	w	Width, the height of the world	To create the Pacman turtle
57	Pacman	getHeading	Heading	Pacman moving to the ghost's last position

15.

Line #	Variable name	Object that provides data	Data provided	Object that uses the data (line #)?
30, 65	ghostsLastXPos	ghost.getXPos	Ghost's last position is shown as its current position	36, 40
31, 66	ghostsLastYPos	ghostsLastYPos	Ghost's last	36, 40

	s	s = ghost.getYPos( );	position is shown as its current position	
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16.