

Computer Science 1	Exercises 05.01-07	Date:
Name:		Period:

1. In what language was *Turtle Graphics* originally introduced?
2. Why is it that we need to “import” commands from different libraries rather than simply making every command from every library available?

Questions 3 through 7 refer to program **TurtleGraphics01.py**.

3. What is the purpose of the command: **import turtle** ?
4. What is the purpose of the command: **turtle.setup(800,600)** ?
5. What is the purpose of the command: **turtle.forward(100)** ?
6. What is the purpose of the command: **turtle.update** ?
7. What is the purpose of the command: **turtle.done** ?
8. What benefit do you get by using **from** with **import**?
9. Compare programs **TurtleGraphics02.py** and **TurtleGraphics03.py**.
Program **TurtleGraphics02.py** uses 4 separate lines of code to **import** 4 different commands from the **turtle** library. How does program **TurtleGraphics03.py** do this with just 1 command.
10. Suppose your program has 3 identical commands, one right after the other, that say **forward(100)**. What would be a more efficient way to draw a line that is **300** pixels long?
11. What 2 commands allow you to *turn* a specific number of degrees?
12. Can the turtle move **backward**?
13. Look at program **TurtleGraphics08.py**. How does this program draw a square?

14. Must all turns be 90-degree turns?
15. What does the **width** command do?
16. Suppose you have some code that draws an enclosed shape (like a square or triangle) in Turtle Graphics. How do you fill it in?
17. What command lets you add color to Turtle Graphics? (Don't overthink this.)
18. How many different colors are available?
19. Look at program **TurtleGraphics16.py**. This program attempts to draw 4 separate squares, with one in each of the 4 corners of the window. Why is the output messed up?
20. Explain how program **TurtleGraphics17.py** fixes the issue of the previous program.
21. What command clears the Turtle Graphics window? (Again, don't overthink this.)
22. What command makes the computer pause for a certain number of seconds?
23. Refer to your answer from the previous question. From which library is this command?
24. Suppose you write a program that draws 2 different shapes in Turtle Graphics. Now you put a **clear** command between the 2 shapes. Does this affect the location or orientation of the second shape?
25. What do **reset** and **clear** have in common?
26. What is the difference between **reset** and **clear**?