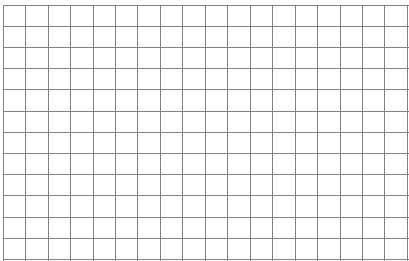
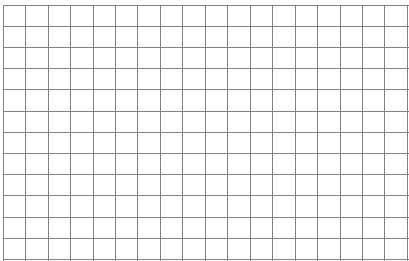
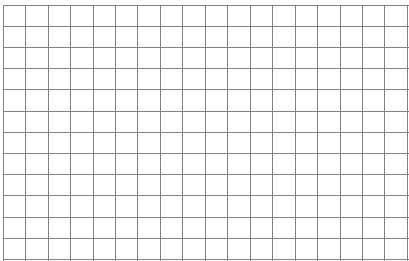
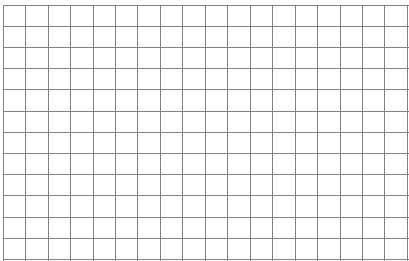
Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_

**Advanced Functions and Modeling Unit 9 Homework 1**

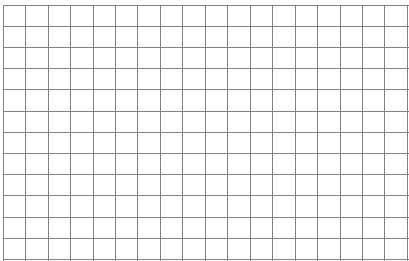
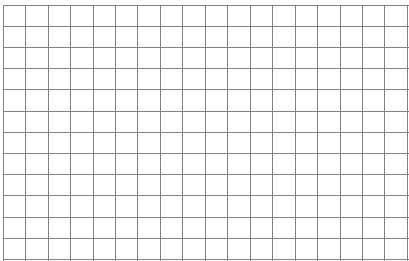
**Graph the parent sine function and the transformed sine function. State the period and the amplitude the for the transformed function.**

1. 2.

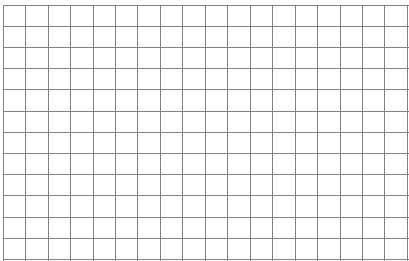
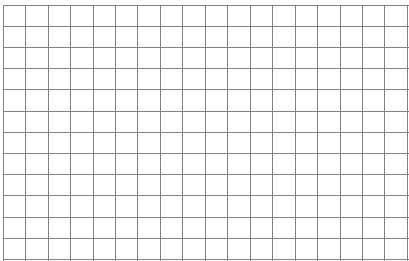


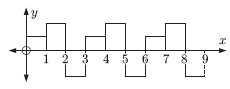
3. 4. 

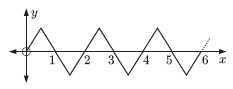
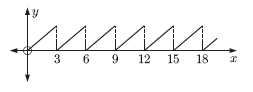
5. 6.

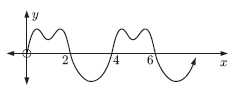


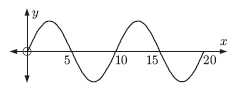
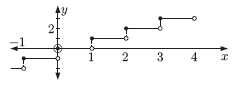
7. 8.



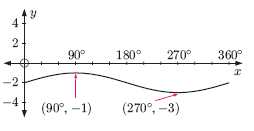
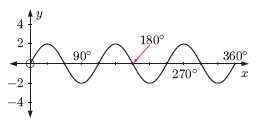
**Which of these graphs show periodic behavior?**

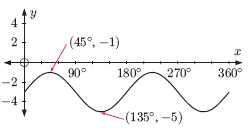
9. 10.  11.

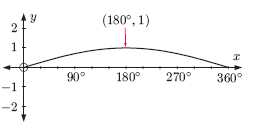


12.  13. 14.

**Find the formula in the form which produces the following graphs.**

15. 16.



17. 18.