Place your name on the back of this sheet of paper and nowhere else. Staple your answers face up on the front of this sheet of paper. Failure to follow these directions will cost you 10 points. Your assignment will be typed, except graphs can be drawn by hand and mathematical equations can be done by hand. Turn in the Excel file via Canvas. Place your name on an otherwise blank page of the Excel file. Failure to type this assignment will cost you 10 points. If you use doublesided printing or print on the back of scrap paper, I will give you one additional point.

All questions except for Question \#1 should be done before class.

1) (5 points each) Use the page on the Excel Sheet (Lab4), tab "Lab" to answer this question. These are the actual winning margins of the Pittsburgh Penguins' games.
A) Forecast the rest of the season using the same value method.
B) Forecast the rest of the season using the same change method.
C) Forecast the rest of the season using the same percent change method.
D) Forecast the rest of the season using the 8-period moving average method.
E) Forecast the rest of the season using the 5-period weighted moving average method.
2) (25 points) Suppose the government spends $\$ 500$ per year, makes transfers of $\$ 450-1 \%$ of GDP per year, and pays $\$ 110$ of interest per year. The tax revenue is $20 \%$ of GDP. If GDP is $\$ 4500$, then how much is the government deficit or surplus. Suppose the full-employment level GDP is $\$ 5500$. How much is the full-employment deficit or surplus? What is the primary deficit or surplus? Show all calculations. Is the government doing good fiscal policy? Explain your logic.
3) (15 points) Explain the difference between deficit and debt.
4) (20 points) What are the automatic stabilizers? Why are they called that? How do they work?
5) (15 points) According to the article below, Estonia used to have a progressive income tax with marginal tax rates ranging from $16 \%$ to $33 \%$. They changed it to a flat tax rate of $26 \%$. From an economic incentive, which system do you think is better? Assume that both brought in the same amount of revenue. https://www.ecb.europa.eu/pub/pdf/other/mb200709 focus10.en.pdf
