

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. Failure to type it will cost you 10 points. If you use double-sided printing or print on the back of scrap paper, I will give you one additional point.

1) (25 points) According to the first two paragraphs in the article linked below, what is Norway proposing to do with government spending? Draw the effects of that on the  $45^\circ$  diagram, a.k.a. Keynesian Cross diagram. Explain why the line(s) moved as drawn. Given your diagram, what do you estimate to be the size of the government spending multiplier? Show all work and make sure you use the more accurate formula.

<https://www.highnorthnews.com/en/focus-high-north-defense-norways-national-budget-2023>

2) (20 points) Draw the  $45^\circ$  diagram, a.k.a. Keynesian Cross diagram. Illustrate the effects of an increase in interest rates. Explain why the curve(s) moved as drawn. What happens to GDP?

3) (20 points) Draw the  $45^\circ$  diagram, a.k.a. Keynesian Cross diagram. Illustrate the effects of an increase in the MPC. Explain why the curve(s) moved as drawn. What happens to GDP?

4) (20 points) Draw the  $45^\circ$  diagram, a.k.a. Keynesian Cross diagram for the USA. Illustrate the effects of the predicted decline in the rest of the world's GDP. Explain why the curve(s) moved as drawn. What happens to GDP in the USA? (There is no need to read the article.)

<https://www.cnn.com/2022/09/16/business/fedex-warning/index.html>

5) (10 points) When we calculated that the government spending multiplier was 10, we made assumptions about other variables. What did we implicitly assume about net exports? If we relax that assumption, what will happen to the size of the multiplier? Explain your logic.

6) (5 points) If the government spending multiplier is 4, then how much would the government have to spend to increase the GDP by \$20 billion? How did you get that value?