

Place your name on the back of this sheet of paper and nowhere else. Staple your answers on the front of this sheet of paper. Failure to follow these directions will cost you 1 point. 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) (15 points) Explain $r = \frac{i - \pi}{1 + \pi}$. Don't forget to explain both π .

2) (15 points) Why should the *expenditure method* of calculating GDP give the same result as the *value added* method? Explain your logic.

3) (10 points) Why does investment equal savings for a closed economy? Why might this not be true for an open economy?

4) (30 points) Draw the production function with labor on the horizontal axis and the production function with capital on the horizontal axis. Note the starting points on both graphs. Illustrate an improvement in the technology on both graphs. Explain why the curve(s) moved or did not move, as drawn and how you found the point you ended at.

5) (30 points) Draw the production function with labor on the horizontal axis and the production function with capital on the horizontal axis. Note the starting points on both graphs. Illustrate an increase in the working age population on both graphs. Explain why the curve(s) moved or did not move, as drawn and how you found the point you ended at.

