

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 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) (10 points) Explain $\frac{\Delta Y}{Y} = 3 - 2\Delta u$. Explain why the 3 is greater than zero and why the absolute value of -2 is greater than 1, in addition to explaining Δu .

2) (30 points) Illustrate an improvement in technology on both the diagram of the production function as a function of labor and the diagram for the labor supply and demand. Explain why the curve(s) moved as drawn. What happens to the amount of labor hired and the wage they are paid?

3) (15 points) Explain why the labor supply curve is very close to vertical.

4) (15 points) The unemployment rate does not always capture all of the wasted human resources. Give two reasons why this is a true statement.

5) (10 points each) For each of the following events, determine what happens to the unemployment rate and the labor force participation rate. Explain your logic. If the unemployment rate changes, tell me which category of unemployed it is and why you chose that category.

A) Tom quits his job because he does not like his boss.

B) John used to be a steel worker in Weirton, but he just lost his job.

C) Jane was a lifeguard for an outdoor pool near here. She lost her job last fall.