

Week 1 Homework: Measuring Production, Employment, and Prices

Suppose an economy produces only vegetarian burgers and vegetarian chili, and the prices and quantities that prevailed for 2022 and 2023 are given in the following table.

	2022		2023	
	Price	Quantity	Price	Quantity
Veggie Burgers	\$11	20	\$12	25
Veggie Chili	\$15	22	\$17	24

1. Compute nominal GDP for 2022 and 2023.

2. Use 2022 as a base year and compute real GDP for 2022 and 2023.

9. Suppose the country of LoompaLand has a civilian working-age population of 10,000 Oompa Loompas who are characterized as follows:

- 5,000 are employed at Willy Wanka's Chocolate Factory
- 1,800 are employed as chocolate industry spies by Sluggworth's Chocolates
- 800 are employed as vocalists in the local music industry
- 500 Oompa Loompas are looking for jobs, but are not yet employed
- 700 Oompa Loompas are not employed, but are not looking for jobs because they became frustrated and gave up trying to find a job
- 1,200 Oompa Loompas are retired, not interested in working.

(a) Define the **labor force participation rate**. Compute the labor force participation rate for LoompaLand.

(b) Define the **unemployment rate**. Compute the unemployment rate for LoompaLand.

(c) Define **discouraged worker**. How many discouraged workers are there in LoompaLand?

10. Suppose that the Bureau of Labor Statistics was failing to identify many new entrants to the labor market, who are looking for work but not yet finding a job. If they fixed this error, what would be the impact on the estimate for the unemployment rate and the labor force participation rate? Explain.