

Homework 11 – KEY

This homework was not submitted for grading,
thus there are no statistics.

Not for submission for grading

This homework will not be graded. The answer key will be posted after a few days. Direct any homework questions to the TA of your section.

1. A village has a population of 100 people, out of which 45 are currently employed. How much is the unemployment rate in that village?
 - A. Around 45%.
 - B. Around 55%.
 - C. Around 0%.
 - D. We do not have sufficient information to answer.**
[We have no way to tell how the 55 people who are not working are split between unemployed and non-labor-force]
2. Which of the following statements is accurate regarding frictional and structural unemployment?
 - A. Frictional unemployment is due to some factor that has a short-term effect, while structural unemployment is due to a factor that has a more permanent effect.** *[Frictional unemployment refers to factors that will be resolved with time (logistics of finding a job etc.). Structural factors such as minimum wage etc. do not improve with time alone]*
 - B. Structural unemployment occurs only in recessions. *[No, structural factors, such as the minimum wage, affect the economy even during expansions]*
 - C. A recession will not have an effect on the amount of frictional unemployment. *[It will. There will be less job openings, so more time will be needed to find a job]*
 - D. All of the above are accurate.
3. Which of the following factors is more likely to affect structural unemployment?
 - A. A labor union that negotiates a wage above the market clearing level. *[Structural factor]*
 - B. A company that offers high wages in order to retain its personnel. *[Structural factor]*
 - C. A law that decreases the minimum wage. *[Structural factor]*
 - D. All of the above.**
 - E. None of the above.
4. What is going to be the effect on the unemployment rate if technological improvement makes the workforce more productive?
 - A. Increase the rate of unemployment.
 - B. Not affect the rate of unemployment.
 - C. Decrease the rate of unemployment.
 - D. The effect on the rate of unemployment may be in either direction.**
[Some firms will choose to expand output and therefore hire more workers, as higher productivity makes additional labor profitable. Other firms, which do not wish to increase output, may lay off employees while maintaining the same level of production, because the remaining workers are now more productive]

5. At the market clearing wage, the unemployment rate in the economy will be which of the following?
- Equal to the natural rate of unemployment.
 - Equal to the difference between the labor market capacity minus the employed workers.
 - Equal to the frictional rate of unemployment.
 - Zero.** *[Those who would take a job at the market clearing wage can find one]*
6. Justin recently received a Master's in Robotics and he is currently working as a waiter at a restaurant while he is looking for a better job in his field. Which of the following is accurate?
- Justin belongs to the labor force.** *[Employed individuals belong to the labor force]*
 - Justin is unemployed. *[Justin has a job – it does not make a difference in unemployment if he is looking for another]*
 - Both A and B.
 - None of the above is accurate.

Scenario 11.1: *If Singapore dedicates all its resources to the production of olive oil, it can produce 100 tons. If it dedicates all its resources to produce banking services, it can produce 180 units; If Greece dedicates its resources in the production of olive oil it can produce 120 tons. If it dedicates all its resources in the production of banking services it can produce 90 units.*

7. According to scenario 11.1, compute the opportunity costs for the production of each good for Singapore.
- 1 ton of olive oil costs 1.8 units of banking; 1 unit of banking costs 0.56 tons of olive oil.**
 - 1 ton of olive oil costs 0.75 units of banking; 1 unit of banking costs 1.33 tons of olive oil.
 - 1 ton of olive oil costs 1.8 units of banking; 1 unit of banking costs 1.33 tons of olive oil.
 - 1 ton of olive oil costs 0.75 units of banking; 1 unit of banking costs 0.56 tons of olive oil.
[For Singapore: To produce 100 tons of olive oil has to give up 180 units of banking. Thus, 1 ton of olive oil costs 1.8 units of banking. To produce 180 units of banking must give up 100 tons of olive oil. So, 1 unit of banking costs 0.56 tons of olive oil]
8. According to scenario 11.1, compute the opportunity costs for the production of each good for Greece.
- 1 ton of olive oil costs 1.8 units of banking; 1 unit of banking costs 0.56 tons of olive oil.
 - 1 ton of olive oil costs 0.75 units of banking; 1 unit of banking costs 1.33 tons of olive oil.**
 - 1 ton of olive oil costs 1.8 units of banking; 1 unit of banking costs 1.33 tons of olive oil.
 - 1 ton of olive oil costs 0.75 units of banking; 1 unit of banking costs 0.56 tons of olive oil.
[For Greece: To produce 120 tons of olive oil has to give up 90 units of banking. Thus, 1 ton of olive oil costs 0.75 units of banking. To produce 90 units of banking must give up 120 tons of olive oil. So, 1 unit of banking costs 1.33 tons of olive oil]
9. According to scenario 11.1, choose the pair of words that make the statement accurate: “_____ has the absolute advantage in olive oil. _____ has the absolute advantage in banking.”
- Greece; Singapore.**
 - Singapore; Greece.
 - Singapore; Singapore.
 - Greece; Greece.
[Greece can produce more olive oil than Singapore (120 tons for Greece vs. 100 tons for Singapore), so Greece has the absolute advantage in olive oil. Singapore can produce more banking services than Greece (180 units for Singapore vs. 90 units for Greece), thus Singapore has the absolute advantage in banking]

10. According to scenario 11.1, choose the pair of words that make the statement accurate: “_____ has the comparative advantage in olive oil. _____ has the comparative advantage in banking.”

- A. **Greece; Singapore.**
- B. Singapore; Greece.
- C. Singapore; Singapore.
- D. Greece; Greece.

[Singapore has the comparative advantage in banking because it can produce it at an opportunity cost lower than Greece’s (0.56 for Singapore vs. 1.33 for Greece) but not in olive oil, where Greece can produce it for a lower opportunity cost (0.75 for Greece vs. 1.8 for Singapore). So, Greece has the comparative advantage in olive oil]

11. According to scenario 11.1, would it be possible for the two countries to trade if the terms of trade were 1 ton of olive oil to 1 unit of banking services?

- A. No, because Singapore would not benefit.
- B. No, because Greece would not benefit.
- C. **Yes, because both would benefit.**
- D. We do not have sufficient information to answer.

[Regarding olive oil, Singapore would want to buy for less than 1.8 and Greece would be willing to sell for more than 0.75. For Banking, Greece would want to buy for less than 1.33 and Singapore would be willing to sell for more than 0.56. 1 to 1 is within the range that both countries would benefit from trade]

12. According to scenario 11.1, would it be possible for the two countries to trade if the terms of trade were 1.5 tons of olive oil for 1 unit of banking?

- A. No, because Singapore would not benefit.
- B. **No, because Greece would not benefit.**
- C. Yes, because both would benefit.
- D. We do not have sufficient information to answer.

[Greece would not accept to pay 1.5 for banking because it can produce banking by itself at an opportunity cost of 1.33]