

ECO 402. Quiz 1

Name _____

Answer the following questions on the left margin. No explanations necessary for Questions 1-8.

(The quiz continues in the back)

1. Suppose a production function for bread, $Y = F(K, L)$, exhibits constant returns to scale. If the number of workers is doubled with no change in capital stock, twice as much bread will be produced. T/F.
2. The production function, $Y = F(K, L) = \sqrt{KL}$, has the property of constant returns to scale and diminishing returns to labor. T/F
3. In 14th century Europe, the bubonic plague and the resulting decimation of population substantially increased/decreased real wage and increased/decreased real rental price in Europe. (Pick the correct one from each set.)
4. Government saving increases if the government collects more taxes while holding transfers and purchases unchanged. T/F
5. If income is 4800, consumption is 3500, government spending is 1000, and tax revenue is 800, public saving is _____, private saving is _____, and national saving is _____. (Fill in the blanks.)
6. In an open economy, total investment always equals national saving. T/F.
7. In a closed economy described in Ch. 3, a \$10 billion rise in government spending would crowd out exactly \$10 billion of investment. T/F.
8. An increase in government purchases will shift the demand for loanable funds to the left. T/F
9. The production function is given as follows: $Y = AK^{0.25}L^{0.75}$. The marginal product of labor can be expressed as $0.75Y/L$. If immigration increases by 10%, total output will change by _____ % and real wage will change by _____%. (If either decreases, make it explicit by attaching a negative sign.) Show your work.

10. The government raises taxes by \$100 billion. If the MPC is 0.7, what happens to the following? Do they rise or fall? By what amounts? Show your work.
- a. Public saving
 - b. Private saving
 - c. National saving
 - d. Investment
 - e. Use a graph and explain how the real interest rate will change.