

MID-TERM EXAMINATION

NAME: _____

Part I. Multiple-Choice Questions (50 points, 5 points each)

- In your term project for this course, the literature review should focus on your sources':
 - evidence
 - methods
 - conclusions
 - all of these

- The economics methods used in this course try to explain behavior in terms of people:
 - following instincts
 - following traditions
 - optimizing something
 - all of these

- Comparisons in “purchasing power parity” (PPP) terms adjust for the tendency of prices to be:
 - higher in richer countries
 - higher in poorer countries
 - both of these

- The start of demographic transition and hence rapid population growth is usually due to:
 - falling death rates
 - rising birth rates
 - changing age structure
 - all of these

- The concept of “population momentum” describes the effect on population growth of:
 - falling death rates
 - rising birth rates
 - changing age structure
 - all of these

- At the start of the structural transformation of an economy, there are usually:
 - rising number of farms
 - rising share of people in cities
 - both of these

- When economists say that demand is “very inelastic” with respect to price, then the:
 - demand curve is very steep
 - elasticity is near zero
 - both of these

- When economists say that demand is “very inelastic” with respect to income, then the:
 - Engel curve is very steep
 - elasticity is near zero
 - both of these

- When the price of the output rises, then the slope of the profit line will:
 - become flatter
 - become steeper
 - not change

- When the price of the output rises, then the input response curve will:
 - shift upwards
 - shift downwards
 - not change

Part II. Economic Analysis

Imagine that, despite the recession and difficult job market, you get hired by Tyson’s as a marketing manager for their poultry sales to Asia. Although you may have lost your class notes from AGECEC 340, remembering a few general principles will help you explain and predict changes in this market.

(1) Food demand (75 points)

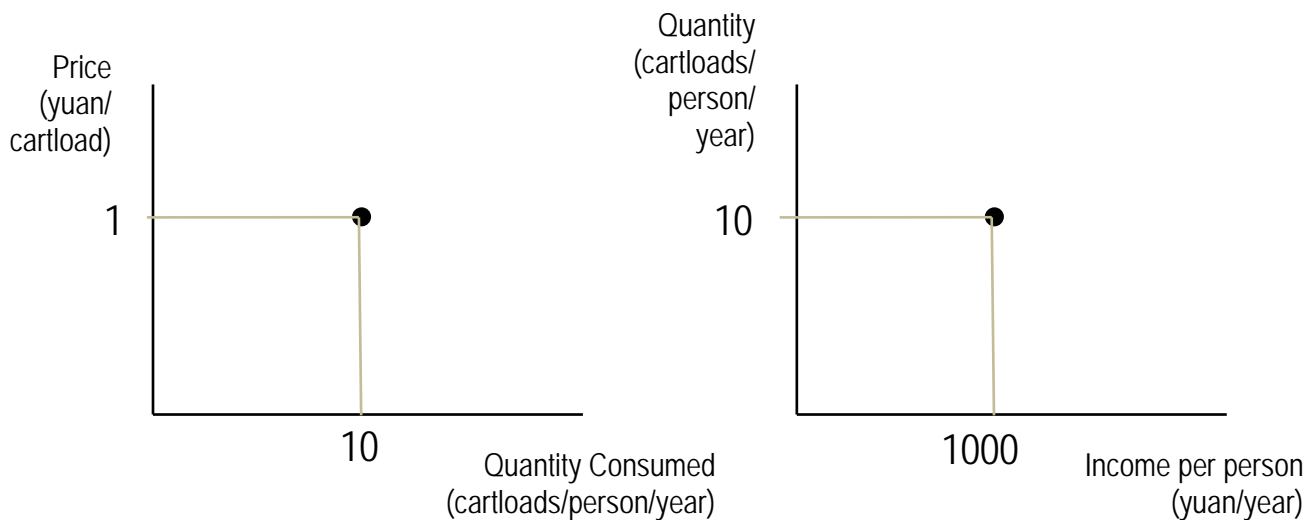
Your first challenge is to explain and predict changes in consumer demand for chicken. The country to which you are first assigned just happens to consume 10 cartloads per person annually, at a price of 1 yuan per cartload, when people have an average income per person of 1000 yuan per year. This situation is already drawn on the charts below. Predicting changes is made easier because these are round numbers, and also because chicken consumption accounts for a very small fraction of income so changes in price have a negligible effect on income and vice-versa.

-- From previous experience, you reckon that **the price elasticity** of demand for chicken is -1. Draw **a solid line** showing a demand curve with this elasticity, on whichever diagram is appropriate, draw **a triangle** at the point on that line when the price has risen by 10% per cartload, and then **write that price and quantity** to label this point appropriately on each axis.

-- Also from previous experience, you think **the income elasticity** of demand for chicken is +1. Draw **a solid line** showing an Engel curve with this elasticity, on whichever diagram is appropriate, draw **a triangle** at the point on that line when the income per capita per year has risen by 10%, and then **write that income and quantity** to label this point appropriately on each axis.

-- Now, use **a dashed line** to show the new demand curve that would arise if income rose by 10%.

-- Also use **a dashed line** to show the new Engel curve that would arise if prices rose by 10%.



(2) Food supply (75 points)

Your second challenge is to explain and predict changes in the production of chickens as opposed to other products. Again, you start with an observation of the current situation, which happens to be a national total of 100 boatloads of chicken per year, which is produced using 1000 trainloads of feed. Farmers also produce 10 boatloads per year of pork.

(i) Are these the only possible quantities that farmers could produce? To answer, **draw a dark, solid line or curve on each chart showing the other combinations of chicken, feed and pork** that you think farmers in this country are physically capable of producing, given current weather conditions and technology. Make sure the location and shape of this line or curve corresponds to what you know about how farmers are likely to use any additional feed or other inputs in the production of chicken and pork.

(ii) Why do farmers now produce the quantities they do? To answer, **draw a lighter, solid line on each chart showing the relative prices of chicken, feed and pork**, in a way that helps explain why farmers produced what they did. Make sure the location and shape of this line or curve corresponds to what you know about how economists explain farmers' choices of input use and production levels.

(iii) What determines the slopes of the lighter lines you just drew? Next to each line **please write the formula** for its slope.

(iv) What happens if a new, improved technology is invented? Using **dashed lines or curves**, redraw any and all parts of the diagrams that would change, and **draw triangles** around the new points of production with the improved technology. For simplicity, assume that **prices do not change**.

