Crack dealing in the 80's

Chicago, January 1984   The Gangster Disciple Nation, a Chicago-based gang, has just opened a new franchise in Grand and Noble neighborhood. The new franchise is managed by a local gang leader and organized as follows : three officers (an enforcer guaranteeing the safety of the gang, a treasurer who watched over the gang's liquid assets and a runner in charge of conveying large quantities of drugs from and to the supplier), and 45 street-level salesmen known as foot soldiers.

The expenses of the gang are reported below:

Table 1: Gang Monthly Expenses

Drug Sales	$24,800
Dues	$5,100
Extortionary Taxes	$2,100
TOTAL MONTHLY REVENUES	$32,000
Wholesale cost of drugs	$5,000
Mercenary fighters	$1,300
Weapons	$1,300
Funeral & charities	$2,400
TOTAL MONTHLY COSTS	$10,000

Monthly gross profit equals to the revenues minus the costs. 25% of the gross profit should be given to the Gangster Disciple Nation's Board of Directors. The local gang leader keeps half of the rest. The remainder is distributed as follows :

- 25% go to the officers

- 75% go to the foot soldiers

1   Why do drug dealers still live with their moms

1. What is the percentage of the monthly gross profit payed to foot soldiers ?

2. What is the relative difference between a foot soldier's monthly income and the local gang leader's monthly income ? Between an officer's monthly income and local gang leader's monthly income ?

3. A foot soldier works on average 50h/month. Knowing that the federal minimal wage in 1984 was $3.35/h, what is the hourly income of a foot soldier compared to the federal minimum wage ? (give the answer in percentages)

4. Why do you think drug dealers still live with their moms ?

2   Mapping of crack dealing

Table 2: Geographical breakdown of Grand and Noble franchise's monthly drug sales

| | Time slots | | | |
	6h-9h	12h-15h	19h-22h	22h-1h
Grand Ave	$2,300	$700	$3,800	$5,200
Noble St	$800	$200	$3,500	$3,500
Hubbard St	$400	$3,200	$1,000	$200

1. What is the best time slot for business ? What share of the whole drug sales does it represent ?

2. What is the percentage of business made in Hubbard St ?

3. What is, in percentages, the geographical breakdown of the sales between 19h and 22h ?

3   Expanding the business

The gross profit of the Grand and Noble franchise increases by 10% each quarter.

1. What is the annual growth rate of the gross profit ?

2. In how many years will have the gross profit doubled ?

3. The year-over-year inflation rate is 5%. After two years, by how much will have the purchasing power of a foot soldier increased ?

4   Mexican mules

In early 1984, the gang was importing 1.25kg/month of crack from Mexico at a 20,000 pesos/kg price. The nominal exchange rate between Mexico and the United States is 5 Mexican pesos = $1. Between 1984 and 1986, the y-o-y inflation rate in the US is the same as in the previous section while the Mexican annual inflation rate is 15%.

1. Supposing that the real exchange rate has not changed, what is the nominal exchange rate between Mexico and the US in 1986 ?

2. What is, in 1986, the price in pesos of 1.25kg of Mexican crack ?

3. What is, in 1986, the price in current US dollars of 1.25kg of Mexican crack ?

4. What is, in 1986, the price in 1984's dollars of 1.25kg of Mexican crack ? (Can you find a way to answer the question without any calculus ?)

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If you are interested in this subject, you can read the chapter "Why do drug dealers live with their moms ?" in Freakonomics, a book by Levitt & Dubner or the econ paper "An Economic Analysis of a Drug-selling gang's Finances" by Levitt and Venkatesh (which you can find here : link towards the article)