

Problem Set 1

1. Consider the following data on food prices and consumer expenditure and compute simple and weighted AM, GM, HM of the price relatives. Also obtain the simple and weighted aggregative price indices. Write a report on comparing these indices.

Item	Price (1961)	Price (1971)	Average expenditure/family/month in 1961
Rice	0.75	1.40	40.2
Wheat	0.46	0.98	15.8
Pulses	1.03	2.10	12.6
Sugar	1.25	1.80	7.2
Salt	0.15	0.25	0.6
Milk	1.20	1.85	19.4
Oil	3.85	6.20	14.2
Fish	3.55	6.50	30.8
Egg	2.05	3.65	5.2
Tea	0.06	0.10	10.3

2. You are given the following price and quantity figures for five commodities over two years: Using 1978 as the base year, construct the following indices for 1982:
 - a. AM of price relatives
 - b. Laspeyre's index
 - c. Paasche's index
 - d. Fisher's index
 - e. Edgeworth-Marshall's index
 - f. Value index

Commodity	Price (Rs.)		Quantity (Kg)	
	<u>1978</u>	<u>1982</u>	<u>1978</u>	<u>1982</u>
A	2.00	2.50	4000	4500
B	5.00	4.00	500	800
C	1.50	2.00	1500	900
D	10.00	12.00	250	260
E	8.00	5.50	2500	5000

Also check that Fisher's index number satisfies time and factor reversal tests.

3. The wholesale crop price index number of India for the year 1969-70 (taking 1968-69 as base) is known to be 100.39. The index number was calculated by Fisher's formula on the basis of the data given below. In the table, the price of rice for the year 1969-70 is missing. Find out the missing value.

Table 1: Wholesale crop price (in Rs./Quintal)

Year	Rice	Wheat	Jowar	Maize	Gram	Barley
1968-69	119.00	82.56	56.00	60.58	83.42	55.62
1969-70	*	95.42	56.00	55.84	101.33	61.40

Table 2: Crop production (in '000 metric tonnes)

Year	Rice	Wheat	Jowar	Maize	Gram	Barley
1968-69	39761	18651	9804	5701	4309	2424
1969-70	40430	20093	9721	5674	5546	2716