

Year	Price X	Quantity X	Price Y	Quantity Y	Price Z	Quantity Z	Nominal GDP
1	1	100	0.5	50	0.6	10	$(1 \times 100) + (0.5 \times 50) + (0.6 \times 10) = 131$
2	2	100	1	50	1.2	10	$(2 \times 100) + (1 \times 50) + (1.2 \times 10) = 262$
3	4	100	2	50	2.4	10	$(4 \times 100) + (2 \times 50) + (2.4 \times 10) = 524$
4	8	100	4	50	4.8	10	$(8 \times 100) + (4 \times 50) + (4.8 \times 10) = 1,048$

The first part of the paper discusses the importance of understanding the underlying mechanisms of the observed phenomena. This involves a thorough review of the existing literature and a clear identification of the research gaps. The second part presents the methodology used in the study, which includes a combination of qualitative and quantitative approaches. The results of the study are then presented in a clear and concise manner, highlighting the key findings and their implications. Finally, the paper concludes with a discussion of the limitations of the study and suggestions for future research.

The study aims to explore the relationship between the independent variable and the dependent variable. The independent variable is defined as the factor that is manipulated or controlled by the researcher, while the dependent variable is the outcome or response that is measured. The study hypothesizes that there is a positive correlation between the two variables. To test this hypothesis, a series of experiments were conducted under controlled conditions. The results of these experiments are presented in the following sections.

The first experiment was designed to investigate the effect of the independent variable on the dependent variable. The results of this experiment showed that there was a significant positive correlation between the two variables. This finding is consistent with the hypothesis and provides strong evidence for the proposed model. The second experiment was designed to explore the role of the mediating variable in the relationship between the independent and dependent variables. The results of this experiment showed that the mediating variable played a significant role in the relationship, supporting the proposed model.

The third experiment was designed to investigate the effect of the independent variable on the dependent variable in the presence of the mediating variable. The results of this experiment showed that the independent variable had a significant effect on the dependent variable, even when the mediating variable was controlled for. This finding further supports the proposed model and suggests that the relationship between the independent and dependent variables is robust.

The fourth experiment was designed to explore the role of the independent variable in the relationship between the independent and dependent variables. The results of this experiment showed that the independent variable had a significant effect on the dependent variable, even when the mediating variable was controlled for. This finding further supports the proposed model and suggests that the relationship between the independent and dependent variables is robust.

The fifth experiment was designed to investigate the effect of the independent variable on the dependent variable in the presence of the mediating variable. The results of this experiment showed that the independent variable had a significant effect on the dependent variable, even when the mediating variable was controlled for. This finding further supports the proposed model and suggests that the relationship between the independent and dependent variables is robust.

The sixth experiment was designed to explore the role of the independent variable in the relationship between the independent and dependent variables. The results of this experiment showed that the independent variable had a significant effect on the dependent variable, even when the mediating variable was controlled for. This finding further supports the proposed model and suggests that the relationship between the independent and dependent variables is robust.

The seventh experiment was designed to investigate the effect of the independent variable on the dependent variable in the presence of the mediating variable. The results of this experiment showed that the independent variable had a significant effect on the dependent variable, even when the mediating variable was controlled for. This finding further supports the proposed model and suggests that the relationship between the independent and dependent variables is robust.

The eighth experiment was designed to explore the role of the independent variable in the relationship between the independent and dependent variables. The results of this experiment showed that the independent variable had a significant effect on the dependent variable, even when the mediating variable was controlled for. This finding further supports the proposed model and suggests that the relationship between the independent and dependent variables is robust.

The ninth experiment was designed to investigate the effect of the independent variable on the dependent variable in the presence of the mediating variable. The results of this experiment showed that the independent variable had a significant effect on the dependent variable, even when the mediating variable was controlled for. This finding further supports the proposed model and suggests that the relationship between the independent and dependent variables is robust.

The tenth experiment was designed to explore the role of the independent variable in the relationship between the independent and dependent variables. The results of this experiment showed that the independent variable had a significant effect on the dependent variable, even when the mediating variable was controlled for. This finding further supports the proposed model and suggests that the relationship between the independent and dependent variables is robust.

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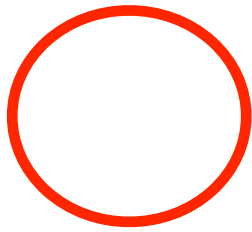
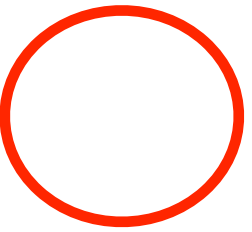
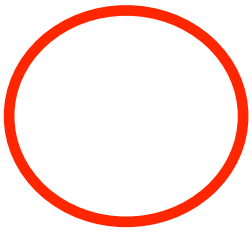
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$$\text{Real GDP} = P_{x \text{ base}} Q_x + P_{y \text{ base}} Q_y + P_{z \text{ base}} Q_z$$

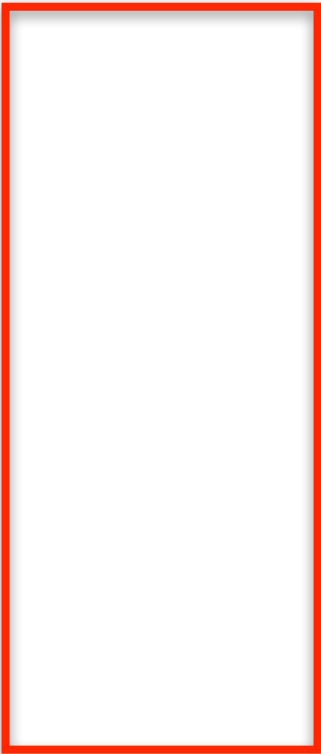
Real GDP

$$(1 \times 100) + (0.5 \times 50) + (0.6 \times 10) = 131$$

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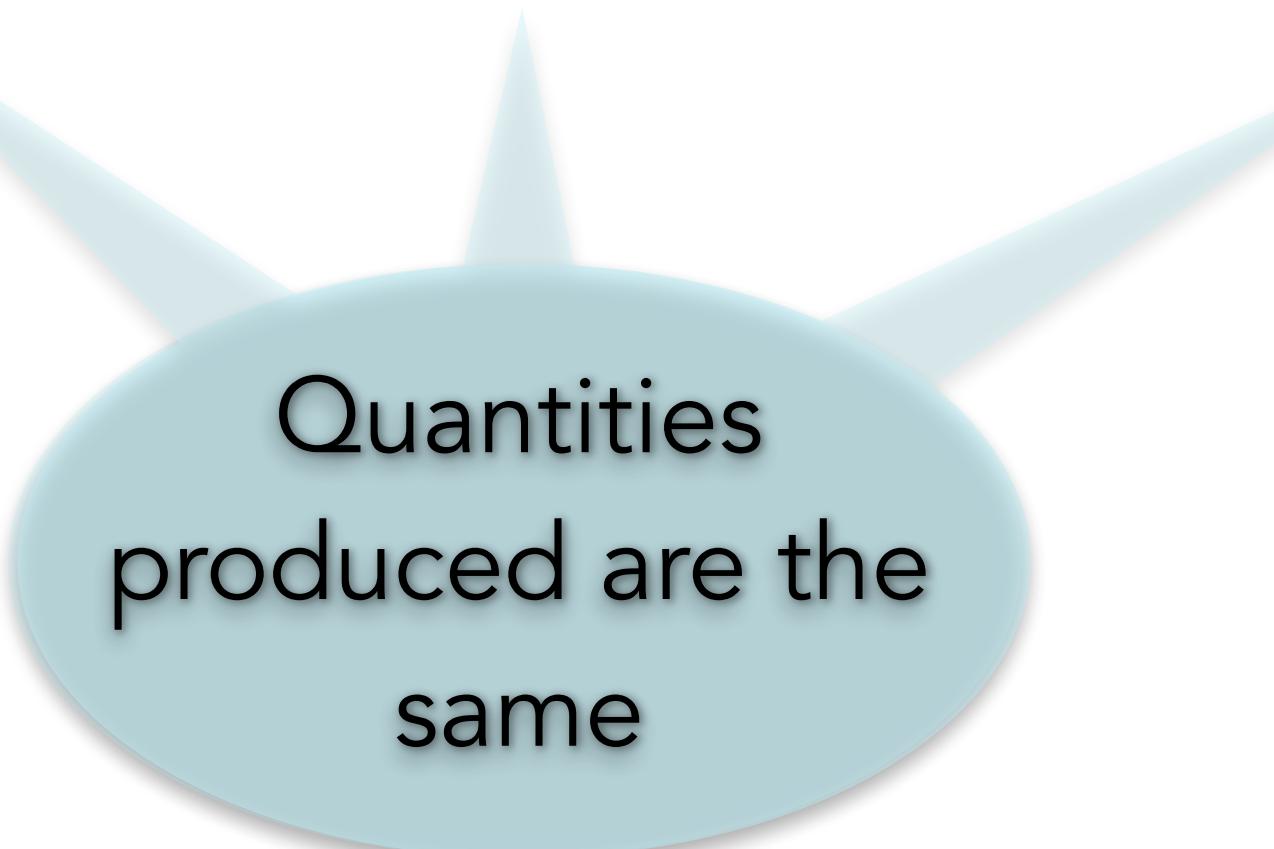
$$(1 \times 100) + (0.5 \times 50) + (0.6 \times 10) = 131$$

$$(1 \times 100) + (0.5 \times 50) + (0.6 \times 10) = 131$$




Choosing Year 1 as the **base** means that we will pretend that prices did not change from what they were in year 1

The choice of base year is arbitrary. In this example we'll use Year 1 as the base



Quantities
produced are the
same



Real GDP
correctly shows
that production
is the same



Nominal GDP tells us
that production
increased!

To calculate **Real** GDP first we
choose a "**base**" year

Choosing Year 1 as the **base** means that we will pretend that prices did not change from what they were in year 1

Real GDP= $P_{x \text{ base}}Q_x + P_{y \text{ base}}Q_y + P_{z \text{ base}}Q_z$

Year	Price X	Quantity X	Price Y	Quantity Y	Price Z	Quantity Z	Real GDP
1	1	100	0.5	50	0.6	10	$(1 \times 100) + (0.5 \times 50) + (0.6 \times 10) = 131$
2	1	100	0.5	50	0.6	10	$(1 \times 100) + (0.5 \times 50) + (0.6 \times 10) = 131$
3	1	100	0.5	50	0.6	10	$(1 \times 100) + (0.5 \times 50) + (0.6 \times 10) = 131$
4	1	100	0.5	50	0.6	10	$(1 \times 100) + (0.5 \times 50) + (0.6 \times 10) = 131$

Quantities produced are the same

Real GDP correctly shows that production is the same

Comparing Real and Nominal GDP