Year	P Apples	Q Apples	P Computers	Q Computers
2026	2	500	1000	5
2027	3	550	1000	6

- Calculating Nominal GDP: Take prices of goods in that year and quantities produced in that year, and add up across the economy.
- For example, in 2026, we can find the following:

$$\text{NGDP}_{2026} = (2)(500) + (1000)(5) = 6000$$

- Similarly for 2027, we can find the nominal GDP as follows:

$$\text{NGDP}_{2027} = (3)(550) + (1000)(6) = 7100$$

- We can also calculate Real GDP by using different base years' prices:

$$\text{RGDP}_{2026} = 6500$$

$$\text{RGDP}_{2027} = 7650$$

- To calculate percentage change in RGDP, we set a base year's prices and find the change in output.
- Calculating the percentage change in RGDP using the initial year as the base price, we get the *Laspeyres Index*
- Meanwhile, if we used the final year as the base price, we would get *Paasche Index*
- The *Fisher Index* is the arithmetic mean of the Laspeyres Index and the Paasche Index.
- We use chain weighting approach to find real GDP by taking the Fisher index, f, and solving for x in the following equation:

$$(1+f)(x) = \text{NGDP}_{\text{current}}$$

- We can also calculate inflation as follows:

$$\text{NGDP} = P \times \text{RGDP}$$
$$\%\Delta\text{NGDP} \approx \%\Delta P \times \%\Delta\text{RGDP}$$

- The change in the price level, $\%\Delta P$, is the *GDP Deflator*, a measure of inflation.
- $\%\Delta P$ can also be calculated as $\%\Delta\text{NGDP} - \%\Delta\text{RGDP}$, where RGDP is calculated using the various indices.