



Provincial Education Department Sabaragamuwa- Week School

Subject: Mathematics

Week- 18

Grade: 10

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Lesson 14

Percentage

Example:

Express $\frac{2}{5}$ as a percentage

$$\frac{2}{5} = \frac{2 \times 20}{5 \times 20} = \frac{40}{100} = 40\%$$

$$\frac{2}{5} \times 100\% = 40\%$$

Identify different types of taxes and solve related problems.

- **Rates**

The local authority provides certain facilities to the residents within the particular local area. In return, the residents are required to pay a certain percentage of the annual value of the property as taxes to the local authority. This tax is known as rates. It can be paid annually or quarterly (every three months)

Simplify the questions 1, 2,3,4,5 in the exercise of 14.1 in the mathematics text book.

- **Customs duty**

When certain items are imported or exported a certain percentage of the value of the item has to be paid as taxes to the government. Such taxes are known as custom duty and this tax is charged by Sri Lanka customs.

Simplify the questions 6, 7, 8,9,10 in the exercise of 14.1 in the mathematics text book.

- **Income Tax**

The government imposes a tax on the annual income of an individual, which is earned as salary, from property or through a business, and which exceeds a certain limit. Such taxes are called income taxes.

Simplify the questions 11, 12, 13 in the exercise 14.1 in mathematics text book.

- **Value Added Tax (VAT)**

When a product or a service is bought, a percentage of its total value is charged as value added tax. The trader who sells the product and the service provider who are both bound to pay this tax, charge it from the consumer.

Simplify the questions 14, 15, 16 in the exercise of 14.1 in the mathematics text book.

- **Simple Interest**

When an amount of money is given as a loan or taken as a loan, an amount is payable above the amount borrowed and such amount is known as interest. Interest payable on Rs. 100 per year is known as the annual interest rate. The interest's charged based on the amount of the loan is a fixed amount. This rate of interest is known as the annual simple interest rate.

$$\text{Interest rate} = \frac{\text{Interest}}{\text{loan amount}} \times 100\%$$

$$\text{Total amount} = \text{loan amount} + \text{interest}$$

$$P = \frac{Irt}{100} \quad P = \text{Interest}$$

$$I = \text{Loan}$$

$$r = \text{Percentage of interest}$$

$$t = \text{time}$$

Simplify the questions in the exercise of 14.2 in the mathematics text book.