

**MINISTRY OF EDUCATION**  
**SECONDARY ENGAGEMENT PROGRAMME**  
**CHRISTMAS TERM 2020/2021**

**GRADE 9**

**SUBJECT: MATHEMATICS**

**WEEK 12**

**Lesson #1**

**Topic:** Consumer Arithmetic

**Sub-Topic:** Hire Purchase

**Objectives:**

Students will:

- ✓ Correctly define terms associated with hire purchase;
- ✓ Calculate with ease the hire purchase price;

**Content:**

**HIRE PURCHASE**

Under a HIRE PURCHASE contract, a purchaser pays an initial deposit and takes the item away. He or she then makes regular repayments (instalments). The instalments include both repayment of the debt and the interest being charged by the vendor. At the end of the period of the agreement, the purchaser owns the item.

**HIRE PURCHASE FORMULAS**

- ✓ Total amount paid = deposit + instalments
- ✓ Deposit = x % of cash price
- ✓ Interest paid = x% of cash price or Hire purchase price – cash price
- ✓ Balance payable = monthly instalment x number of months
- ✓ Total interest paid = total amount paid – original price of item
- ✓ Hire purchase price = balance payable + deposit

Example - 1

Lachlan Conor buys a new refrigerator. The advertised price was \$2700. Under the terms of a hire purchase contract, Conor agrees to pay a deposit of \$500 and monthly repayments of \$115 over 2 years.

- a. Under this agreement, what is the total cost to Lachlan of the refrigerator?

$$\begin{aligned}\text{Total cost (HP)} &= \text{deposit} + \text{balance payable} \\ &= \$500 + (\$115 \times 24 \text{ months}) \\ &= \$500 + \$2760 \\ \text{HP} &= \$3260\end{aligned}$$

Hence the total cost Conor will have to repay is \$3260.

- b. What is the total interest that Lachlan pays?

$$\begin{aligned}\text{Interest payable} &= \text{HP} - \text{CP} \\ &= \$3260 - \$2700 \\ &= \$560.\end{aligned}$$

Hence the total interest payable is \$560.

## Question 2

The marked price of a television set is \$6980. If the consumer pays cash, then the price is 12% below the marked price. If the set is bought on hire purchase, then the buyer pays a down payment of \$628.20 and 24 monthly installments of \$344.06 each.

- Determine for the television:

- a) the Cash price

$$\begin{aligned}\text{Cash price} &= 12\% \text{ below mark price} \\ &= \frac{12}{100} \times \$6980 \\ &= \$837.6\end{aligned}$$

Hence the cash price is \$837.6.

- b) the hire purchase price

$$\begin{aligned}\text{HP} &= \text{deposit} + \text{balance payable} \\ &= \$628.20 + (24 \text{ months} \times \$344.06) \\ &= \$628.20 + \$8257.44 \\ &= \$8885.64.\end{aligned}$$

## Reference:

[www.icoachmath.com/math\\_dictionary/Discount.html](http://www.icoachmath.com/math_dictionary/Discount.html)