

PENANG SANGAM HIGH SCHOOL

WORKSHEET 8

STRAND: 5 MEASUREMENTS

SUB STRAND: Money

Week 22

Learning Outcome:

- Interpret percentage of given values
- Describe buying goods on hire purchase
- Calculate the total cost incurred, saved or loss when purchasing goods on hire purchase
- Discuss the advantages and disadvantages of goods bought on hire purchase

Percentages

- Means out of 100(part of 100)
- $a\%$ is $\frac{a}{100}$
- Type of fractions that always have a denominator 100.
- To convert a fraction or decimal to a percentage ,the decimal or a fraction is multiplied by 100.
- Selling Price = Cost price + profit
- $\% \text{ profit} = \frac{\text{profit}}{\text{cost price}} \times 100$
- $\% \text{ loss} = \frac{\text{loss}}{\text{cost price}} \times 100$

Example 1

75 % means 75 out of 100 or $\frac{75}{100}$

As decimal , 75 % = 0.75

As a fraction, $75\% = \frac{75}{100} = \frac{3}{4}$

Example 2

Increase \$10 by 5%

Method 1

Step 1

$$\frac{5}{100} \times \$10 = \$0.50$$

Step 2

$$\$10 + \$0.50 = \$10.50$$

Method 2

$$100\% + 5\% = 105$$

$$\frac{105}{100} \times \$10 = \$10.50$$

Example 3

Decrease 15kg by 4%

Method 1

$$\frac{4}{100} \times 15\text{kg} = 0.6$$

$$15\text{kg} - 0.6 = 14.4 \text{ kg}$$

Method 2

$$100\% - 4\% = 96\%$$

$$\frac{96}{100} \times 15\text{kg} = 14.4\text{kg}$$

Example 4

Calculate 6% of \$55.

$$\frac{6}{100} \times \$55 = \$3.30$$

Discount

- Amount usually given as a percentage of money by which the price of goods is decreased in sales.

Example

Find the discounted price if \$80 is discounted by 12%.

Solution

Discount = *marked price* × % *discount*

$$\$80 \times \frac{12}{100}$$

$$= \$9.60$$

Discounted Price = \$80 - \$9.60

$$\$70.40$$

Exercise

1. Write the following as **percentage**
 - a. 47%
 - b. 80%
2. Write the following **percentage as decimals**
 - a. 20%
 - b. 50%
3. Write each **fractions as percentages**
 - a. $\frac{3}{5}$

b. $\frac{2}{3}$

4. Calculate 20% of each of the following

a. 70

b. 30

5. Write as a **percentage**

a. 30 marks out of 40 marks

b. 200g out of a kg

c. 10minutes out of an hour

6. Increase 250 by:

a. 20%

b. 50%

7. Decrease 500 by:

a. 10%

b. 60%

8. A handicraft stall at Rakiraki Market allows a discount of 12%.Mrs Young buys handicrafts worth \$186.

a. How much discount will Mrs. Young get?

b. What will she pay for the handicrafts?

In a sale the cost of a computer is reduced by 30%.The normal price of the computer was \$1499.Claculate the sale price of the computer