

## **APPLICATION OF PERCENTAGES AND SIMPLE INTEREST**

1. Express the following as percentages:  
a)  $\frac{3}{4}$                       b)  $3\frac{1}{4}$                       c) 3:5                      d) 0.25
2. A) Express  $\frac{1}{4} \div \frac{1}{3}$  as a percentage.                      b) Express 30% as a ratio.
3. a) Express 12  $\frac{1}{2}$ % as a fraction.                      b) Write 60% as a decimal.
4. a) What is 25% of 600kgs?                      b) What is 12  $\frac{1}{2}$ % of sh.3,000?
5. 80% of the children in Uganda are immunized. Express the percentage as a ratio.
6. 80% of the pupils in a class are girls. What percentage are boys?
7. If 40% of a number is 200. What is the number?
8. If 120% of a number is 288. What is the number?
9. 35% of a number is 70. What is 60% of the number?
10. 15% of the pupils in a class are absent. What percentage of the pupils are present?
11. In a class of 70 pupils, 40% of them are boys and the rest are girls.  
a) Find the percentage of girls.  
b) How many more girls than boys are in the class?
12. 30% of the books in a store are Mathematics books, 20% are English books and 10% are for S.S.T. What percentage is for other subjects?
13. A man spends only 30% of his salary on rent, 15% on clothing and saves the rest. What fraction of salary does he save?
14. There are 10% more cows than bulls in the farm. If there are 60 bulls in the farm.  
a) Find the percentage for cows.  
b) How many animals are in the farm?
15. Express 20 as a percentage of 25.
16. Express 15 minutes as a percentage of an hour.
17. Increase 600 by 15%.
18. Increase sh.1,800 by 12  $\frac{1}{2}$ %.
19. Increase 200 by 10% then by 25%.
20. Increase 300 by 20% then decrease by 10%.
21. Increase 240 vehicles by 66  $\frac{2}{3}$ %.
22. Norah's salary was increased by 24%. She used to get sh.120,000. What is her new salary?
23. The price of an article was increased by 30% from sh.90,000. What is the new price of the article?
24. Decrease sh.1,000 by 12  $\frac{1}{2}$ %.
25. Decrease sh.3,600 by 35%.

26. Reduce 1,000 bags of groundnuts by 20% then by 30%.
27. What number when increased by 20% becomes 960?
28. Daniel's salary when increased by 20% becomes sh.120,000. What is the original salary?
29. After increasing a number by  $12\frac{1}{2}\%$ , it becomes 27,000. What was the original number?
30. When a number is increased by 30%, it becomes 2,600. What is the number?
31. If sh.X is reduced by 30%, it becomes sh.3,430. Find the value of X.
32. By selling a watch at sh.36,000, a trader made a profit of 20%. What was the original price of the watch?
33. A dealer bought a radio for sh. 90,000 and later sold it at sh.120,000. Calculate his percentage profit.
34. Alice spends sh.180,000 of her salary on scholastic materials. If this is only 40% of her salary. What is her salary?
35. Okello bought a trouser at sh.60,000. He later sold it at a profit of sh.12,000. Find his percentage profit.
36. Lawrence bought a goat for sh.80,000 and sold it for sh.76,000. Calculate his percentage loss.
37. The cost price of a pair of shoes was sh.50,000. After selling it, he realized a profit of 40%. What was the selling price of the pair of shoes?
38. Thomas bought a tray of eggs at sh.7,500 and sold it at sh.300 per egg. If a tray contains 30 eggs, calculate his percentage profit.
39. The marked price of a book is sh.8,000. If Lule is offered a discount of 10%;
  - a) How much is the discount?
  - b) Calculate the cash price of the book.
40. A retail trader bought 20 books at sh.440,000. At what price must he sell each book to get a profit of 30%?
41. A trader sold 50kg bag of sugar for sh.2,500 per kg.
  - a) How much profit did he make if he bought the bag at sh.100,000?
  - b) What was his percentage profit?
42. A trader who sells a sack of rice for sh.360,000 makes a 25% profit.
  - a) Find the cost price of the sack of rice?
  - b) If he now sells it and loses 15% of the buying price, what should be his new selling price?

43. Out of 120 students who took an examination,  $33\frac{1}{3}\%$  of them were girls. If 40% of the boys failed and 5% of the girls passed the examination. How many students passed the examination altogether?
44. Mrs Owacgiu has 360 bags of soya beans. If he sells  $12\frac{1}{2}\%$  of them . How many bags did he remain with?
45. The marked price of a radio cassette was 160,000. The shopkeeper sold it to Onenkan at a profit of 20%. Onenkan later sold the radio to Okello at a loss of 10%. How much did Okello pay for the radio?
46. The price of a book was raised by 10%. If the original price was sh.40,000. What is the new price of the book?
47. James sold an Android phone at sh.600,000 making a profit of 20%. Atwooki later sold the phone to Maria making a loss of 15%.
  - a) How much did Atwooki buy the phone?
  - b) Calculate the loss made by Maria.
48. Sabrina deposited sh.50.000 on her savings account. At the end of 3 years, the simple she earned was sh.15,000. Calculate the rate of interest.
49. Milly lent sh.100,000 to Davis at a simple interest rate of 5% per month for 6 months. How much interest did Davis pay to Milly at the end of the 6 months?
50. Calculate the simple interest on sh.24,000 for 8 months at a rate interest of 15%.
51. Maureen deposited sh.40,000 for 5 years at a simple interest rate of  $2\frac{1}{2}\%$  per year. Calculate his simple interest and total amount after the 5 years of investment.
52. What sum of money will yield an interest of sh.6,000 at 5% for 3 years?
53. A farmer borrowed money from Centenary Bank at a rate of  $12\frac{1}{2}\%$  per annum and paid an interest of sh.8,000. How much did the farmer borrow from the bank?
54. Calculate the rate of interest if sh.30,000 can yield a simple interest of sh.1,125 in 9 months.
55. In what time will sh.120,000 yield an interest of sh.18,000 at 5% per year?
56. A girl borrowed sh.50,000 at a rate of 3% and paid sh.15,000 as interest. For how long did she use the money?
57. Mr. Kalema deposited sh.30,000 in Africa Bank and received an interest of sh.3,000 after a period of  $2\frac{1}{2}$  years. What was the rate of interest charged?
58. Mr. Owor took a loan of sh.600,000 from National Housing Finance Bank and paid an interest of sh. 135,000 at a rate of 10%. How long did he use the money?