

PRIMARY MATHS SERIES

REVISION GUIDE FOR STANDARDS 7 AND 8

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MONEY

4.1 Specific Objectives

By the end of the unit, the learner should be able to:

- a) Work out problems involving percentage profit and loss
- b) Work out problems involving bills.
- c) Solve problems involving discount, percentage, discount, commission and percentage commission
- d) Work out problems involving hire purchase
- e) Work out problems involving simple interest
- f) Work out problems involving compound interest
- g) Work out problems involving postal charges

4.2 Worked Exercise

1. Mutiso paid sh.330 for an item after the shopkeeper gave him a 12% discount. What was the marked price of the radio?

A.sh300

B. sh369.60

C. sh375

D. sh350

Working

Marked price = 100%

Discount = 12%

S.P = 100% - 12%

= 88%

∴ If 88 % = 330

100% = ?

$\frac{100 \times 300}{88} = \text{Sh}375$

The correct answer is C (375)

2. Olang' borrowed sh.54000 from a bank which charged interest at the rate of 18% p.a. He repaid the whole loan after 8 months .How much did he pay back?

- A sh6480 B. sh60, 480 C.sh14580 D. sh77760

Working

$$\begin{aligned}
 I &= \frac{PRT}{100} \\
 &= \frac{54000 \times 18 \times 8}{100 \times 12} \\
 &= \text{sh}6480 \\
 \text{Amount} &= P + I \\
 &= 540000 + 6480 \\
 &= \text{sh } 60, 480
 \end{aligned}$$

The correct answer is B

3. The cash price of a microwave is sh. 18000. The hire purchase price of the microwave is 20% more than the cash price. Barno bought it on hire purchase terms by paying 40% of the hire purchase price as the deposit and the balance equal monthly installments of sh1620. How many installments did he pay?

- A. 12 B. 10 C. 9 D. 8

Working

Let the cash price be 100%

$$\begin{aligned}
 \text{Hire purchase} &= 100\% + 20\% \\
 &= 120\% \text{ of the cash price} \\
 &= \frac{120}{100} \times 1800 \\
 &= \text{sh.}21, 600 \\
 \text{Deposit} &= 40\% \text{ of HPP} \\
 &= \frac{40}{100} \times 21,600 \\
 &= \text{sh.}8, 640 \\
 \text{HPP} &= D + MI
 \end{aligned}$$

$$\begin{aligned}
 I &= \frac{HPP - D}{M} \\
 &= \frac{21600 - 8640}{1620} \\
 &= 8 \text{ Months}
 \end{aligned}$$

The correct answer is D (8)

4. Salim deposited sh25000 in a bank which paid compound interest at the rate of 10% per annum. If he withdraws all his money after 12 years, how much interest did his money gain?

A. sh5250 B. sh2500 C. sh1375 D. sh387

Working

Interest for year 1

$$\begin{aligned}
 I &= \frac{PRT}{100} \\
 &= \frac{25000 \times 10 \times 1}{100} \\
 &= \text{Sh}2500 \\
 \text{Amount} &= 25000 + 2500 \\
 &= 27,500
 \end{aligned}$$

Interest for 2nd year

$$\begin{aligned}
 I &= \frac{PRT}{100} \\
 &= \frac{27,500 \times 10 \times \frac{1}{2}}{100} \\
 &= \text{Sh}1375
 \end{aligned}$$

Total interest (2,500 + 1,375)

$$= \text{Sh}3875$$

The correct answer is D (Sh 3875)

5. Kamaru bought bananas in groups of 20 at sh20 per group. He cut them into smaller groups of 5 bananas each and sold them at sh10 per group. What percentage profit did he make?

- A. 40% B. 50% C. 60 % D. 70%

Working

For every 20 bananas = sh 25

One group produces 4 smaller groups of 5 bananas each

$$\begin{aligned}
 \therefore \text{Sp} &= 4 \times 10 \\
 &= \text{sh}40 \\
 \text{B.P price} &= \text{sh}25 \\
 \text{Profit} &= 40 - 25 \\
 &= \text{sh}15 \\
 \% \text{ profit} &= \frac{\text{P}}{\text{BP}} \times 100 \\
 &= 60\%
 \end{aligned}$$

The correct answer is C (60).

6. A shopkeeper bought 3 trays of eggs at sh 150 per tray. On the way to the shop, he realized 20% of the eggs were broken. He sold the rest at sh 72 per dozen. How much loss did he make?

- A.sh450 B.sh432 C.sh18 D.sh28

Working

$$\begin{aligned}
 \text{B.P for 3 trays} &= 3 \times 150 \\
 &= \text{sh}450 \\
 \text{Number of eggs} &= 3 \times 30 \\
 &= 90 \text{ eggs} \\
 20\% \text{ eggs broke} &= \frac{20}{100} \times 90 \\
 &= 18 \text{ eggs broken} \\
 \text{Therefore remained} &= 90 - 18
 \end{aligned}$$

$$\begin{aligned}
 &= 72 \text{ eggs} \\
 1 \text{ dozen} &= \text{sh}12 \\
 ? &= 72 \\
 &= 6 \text{ dozens} \\
 1 \text{ dozen} &= \text{sh}.72 \\
 6 \text{ dozens} &= ? \\
 \text{Loss} &= \text{B.P} - \text{S.P} \\
 &= 450 - 432 \\
 &= \text{sh}18
 \end{aligned}$$

The correct answer is C (sh18)

7. A Salesperson earns a basic salary of sh7500 per month. He is also paid a 5% commission on all sales above sh30, 000. In a certain month his total earnings were sh.14250. What was his total sales for that month?

A.sh135000 B.sh285000 C. sh165000 D.sh315000

Working

$$\begin{aligned}
 \text{Commission} &= \text{sh}14250 - \text{sh}7500 \\
 &= \text{sh}6750 \\
 \therefore 5\% &= \text{sh}6750 \\
 100\% &= ? \\
 &= \frac{100}{5} \times 6750 \\
 &= 135,000 \\
 \text{Total sales} &= (135,000 + 30,000) \\
 &= \text{sh}165000
 \end{aligned}$$

The correct answer is C (sh 165,000)

8. Shiku bought the following items from a shop

6kg of sugar @ sh45

$\frac{1}{2}$ of tea for sh90

3 kg of rice @ sh30

2kg of fat @ sh70

If she used one thousand shillings to pay for the items, what balance did she receive?

A.sh410

B.sh455

C.sh590

D.sh765

Working

Shiku's Bill

Item	Sh	ct
6kg sugar @ sh45	270	00
$\frac{1}{2}$ kg tea for sh90	90	00
3kg rice @ sh30	90	00
2kg fat @ sh70	140	00
Total	590	00

Total expenditure = sh590

Balance = sh1000 – sh590

The correct answer is = sh410 (A)

9. Maranga paid sh4, 400 for a bicycle after he was given a 12% discount. James bought the same item from a different shop and the same item from a different shop and was given a 15%. How much more than James did Maranga pay for the bicycle?

A.sh250

B. sh300

C. sh750

D. sh150

Working

$$\text{Maranga B.P} = 100\% - 12\%$$

$$= 88$$

$$\therefore \frac{4400}{88} \times 100 = \text{sh}5000$$

$$\text{James B.P} = 100\% - 15\%$$

$$= 85\%$$

$$\left(\frac{85}{100} \times 5000\right) = \text{sh}4,250$$

$$\text{How much more?} = (5000 - 4250)$$

$$= \text{sh}750$$

The correct answer is C (750)

10. The table below shows postal charges for sending letters;

Mass of letter	Sh	ct
Up to 20g	25	00
Over 20g up to 50g	30	00
Over 50g up to 100g	35	00
Over 100g up to 250g	50	00
Over 250g up to 500g	85	00
Over 500g up to 1kg	135	00
Over 1kg up to 2kg	190	00

Namu posted two letters each weighing 95g and another one weighing 450g. How much did he pay at the post office?

A. sh120

B. sh135

C. sh155

D. sh240

Working

Two letters

95g _____ Sh35.00

95g _____ Sh35 .00

Another 450g _____ Sh85.00

sh 155.00

The correct answer is C (sh155)

4.3 Practice Test Paper 4

1. The hire purchase price of a radio consists of a deposit of sh7800 plus 8 monthly installments of sh1950 each. The hire purchase price is 50% more than the cost price and the marked price is 25% more than the cost price of the radio. If the radio is bought on cash a customer is given 10% discount. How much more does one pay on hire purchase than on cash terms?

A.sh7800 B.sh5850 C.sh1950 D.sh3900

2. The marked price of a shirt is sh 400. A man bought it at a discount of 20% and later sold it at a price which was 20% higher than its marked price. What percentage profit did he make?

A. 40% B. 50% C. 33 1/3% D. 150%

3. Bukeko deposited sh50 000 in a financial institution which paid a compound interest at 10% p.a. After half a year, he withdrew sh8500 and left the balance in his bank until the end of the second years. How much money was in his account at the end of the second year?

A.sh52, 000 B.sh50, 600 C.sh50, 820 D.sh52, 500

4. The marked price of an item is sh22500. A discount of 10% is given for any cash payment. The item can also be bought on hire purchase terms where someone pays a deposit of sh 7500. The balance is payable in 12 monthly installments of sh1450 each. By how much is the hire purchase payment more than the cash price payment?

A.sh2250 B.sh2400 C.sh4650 D.sh3, 650

5. Luke man was given a 5% discount on buying a digital camera whose marked price was sh. 3600. How much did he pay for the camera?

- A.sh3420 B.sh3060 C.sh4140 D.sh3160

6. George deposited sh40000 for a period of 3 years and 6 months in a bank. At the end of this period, the money had amounted to sh56800. At what rate was the interest paid?

- A. 18 B. 10 C. 12 D. 15

7. Odinga invested some money in a business that paid a simple interest at the rate of 15%p.a. At the end of a 9 month he withdrew sh1125 which was the interest he money he had invested had earned. How much money had he invested?

- A.sh1000 B.sh5625 C.sh7500 D.sh10, 000

8. A young man earns a salary of sh2000 plus a 5% commission on sales above sh10000. In one month he sold goods worth sh25000. How much money did he earn that month?

- A.sh3250 B.sh2750 C.sh2500 D.sh750

9. The cash price of a good is sh 11,700. The higher purchase price is 20% more than the cash price. Mbugua bought the goods on hire purchase terms. He paid a deposit of sh2808 and 12 monthly installments. How much was each installments

- A.sh1404 B.sh1170 C.sh936 D.sh546

10. Sarah bought the following items from a shop;

2kg cooking fat @ sh100

2 loaves of bread @ sh20

2 kg packet of unga for sh55

$\frac{1}{2}$ kg tea leaves for sh100

What balance did she receive from a shopkeeper if she gave a five hundred shillings note?

- A.sh395 B.sh100 C.sh225 D.sh105

11. Juma bought a radio after being given a 30% discount. If this represents sh630, how much does the radio cost after the discount?

- A.sh441 B.sh1470 C.sh2100 D.sh2730

12. Kilonzo bought the following items

2 bags of cabbage @ sh2500

4 bags of potatoes @ sh2000

20kg of cooking oil for sh2000

100 kg of sugar @ sh96

50 loaves of bread @ sh35

He was given a 10% discount for all his purchases. How much did he pay for the items?

- A.sh23715 B.sh26350 C.sh57915 D.sh28985

13. The cost price of a radio cassette is sh8000. The hire purchase price is 50% more than the cost price. Njoki bought it on hire purchase by paying a deposit of sh2400 and equal monthly installments of sh800. In how many months did she pay the installments?

- A.18 B.15 C. 12 D. 10

14. Wangui paid sh1800 for a dress after 10% was allowed. How much would she have paid for the dress had she been allowed a 12% discount?

- A.sh2000 B.sh1760 C.sh1584 D.sh240

15. Kyalo bought the following items from a local shop

3 packets of flour at sh90 each

2 kg of beans for sh170

1 $\frac{1}{2}$ kg of potatoes at sh40 per kg

2 loaves of bread at sh34 each

If he had sh 800, how much was he left with?

- A.sh62 B.sh232 C.sh466 D.568

16. Wandago bought a pair of trousers for sh810 after being given a 10% discount. What was the marked price of the pair of trousers?

- A.sh81 B.sh729 C.sh891 D.sh900

17. Kezziah gets a basic salary of 8000 every month from her employer. In addition she is paid a 5% commission for every sales she makes above sh15000. In the month of June, she earned a total of sh12000. What was the total sales?

- A.sh255,000 B.sh95000 C.sh80,000
D.sh65,000

18. A motor bike costs sh30,000 but a discount of 5% is given for any cash payments. A young man bought it one hire purchase terms by paying a deposit of sh8500 followed by ten equal monthly installments of sh2400 each. How much money would he have saved had he bought it for cash?

- A.sh4000 B.sh2500 C.sh1500 D.sh28,500

19. Wanjiku deposited sh50, 000 in a Sacco for 2 years. The Sacco paid a compound interest at the rate of 10% p.a. How much was in her account at the end of the two years?

- A.sh10, 500 B.sh55, 500 C.sh60, 000 D.sh60, 500

20. A house girl bought the following items from a supermarket

3kg of sugar @ sh68

250g of tea leaves for sh85

2 bars of soap @ sh38

1 kg of cooking fat for sh109

2kg packet of rice for sh149

She paid for the items using two 500-shillings notes. How much balance did she receive?

- A.sh228 B.sh377 C.sh551 D.sh623

21. Ben paid sh10200 for a bed after a discount of 15% was allowed. How much does the bed cost before the discount is given?

- A. sh1530 B. sh8670 C. sh11730 D. sh12000.

22. Two men, John and Gitau deposited sh10000 in different financial institutions. John deposited in a bank that offered a compound interest at the rate of 5% while Gitau deposited in a bank which offered a simple interest at the rate of 5% p.a. How much more interest had John's money earned than Gitau's after 2 years?

- A.sh25 B.sh1000 C.sh1025 D.sh2025.

23. A Sales agent gets a monthly pay of sh5000. He is also paid a $2\frac{1}{2}\%$ commission on sales above sh100,000. In the month of January, he sold goods worth sh500,000. What was his total earnings?

- A.sh10,000 B.sh12500 C.sh15000 D.sh17500.

24. Ochuka deposited sh8000 in a bank that paid simple interest. At the end of 3 years, his money had amounted to sh9200. At what rate p.a. was the simple interest awarded?

- A. 5% B.15% C. 38.5% D. $4\frac{8}{23}\%$

25. Bahati sells goods for accompany that pays him monthly salary of sh. 84000 plus a 20% commission for sales above sh10, 000. In one month his earnings were sh150, 000. What was the value of the goods he sold?

- A.sh760, 000 B.sh340, 000 C.sh330, 000 D.sh244, 000.

26. Afasi borrowed sh 50, 000 from a bank that charged compound interest at the rate of 25% p.a. How much should he pay the bank at the end of two years?

- A.sh78125 B.sh75000 C.sh62500 D.sh28125

27. Sisoka borrowed sh10, 000 from a bank for a period of two years. She was charged compound interest at the rate of 15% p.a. How much interest did she pay altogether?

- A.sh1500 B.sh13225 C.sh3225 D.sh1725

28. Musa bought the following items

3kg of tomatoes @ sh25

$\frac{1}{2}$ kg of onions @ sh25

2kg packets of maize flour for sh38

$\frac{1}{2}$ kg of sugar @ sh44

He paid for the items using a sh200 note. How much balance did he get?

A.sh52.50

B.sh40

C.sh63

D.sh12

29. Allan was paid sh9000 per month. He was also paid a commission of 10% for all the goods he sold above 10000. In one month he sold goods worth sh25000. How much was his total earnings?

A.sh11 500

B.sh12500

C.sh10500

D.sh1500

30. Harun deposited sh4800 in a bank that paid interest at the rate of 12%p.a. How much did he have in the bank at the end of six months?

A.sh288

B.sh5088

C.sh5376

D.sh8256

31. The table below shows rates of sending letters and post cards through the post office

Type of article and mass		Sh	ct
Letters (Maximum weight 2kg)	Not over 20g	6	00
	Not over 50g	7	00
	Not over 100g	8	00
	Not over 250g	12	00
	Not over 500g	20	00
	Not over 1000g	32	00
	Not over 2kg	47	00
Post cards	Single cards	4	50

Karnai sent the following letters and post cards: 1 letter weighing 15g; 2 letters weighing 120g; 4 letters weighing 550g and Three postcards. How much did he pay for postage?

A.sh171.50

B.sh115.50

C.sh90.50

D.sh136.50

32. The table below shows the post office charges for sending letters, postcards and aerogramme.

Inland		International		
Mass		Africa	Europe	America & Far east
Not over 20g	Kshs 6	Aerogrammes		
Not over 50g	Ksh 7			
Not over 100g	Ksh 8			
Not over 250g	Ksh 12	Sh. 9	Sh. 9	Sh.9
Not over 500g	Ksh 20	Post Cards		
Not over 1kg	Ksh 32	Sh.6	Sh.8.50	Sh.11.00
Not over 2kg	Ksh 47			

Mailiki sent the following items by mail: 3 letters weighing 19g, 600g and 2kg respectively, 2 post cards to Europe and one to America and 1 aerogramme to Far East. How much did she pay for the mail?

A.sh111

B.sh118

C.sh122

D.sh133

33. The following table shows the postal rates for sending letters and post cards.

Type of Article		sh	ct
Letters (Max 2kg)	Not over 20g	14	00
	Not over 50g	17	00
	Not over 100g	18	00
	Not over 250g	28	00
	Not over 500g	46	00
	Not over 1kg	75	00
	Not over 2kg	110	00
Post cards	Each	12	00

Denis sent the following letters and post cards

Three letters each weighing 49 g

One letter weighing 150g

Five letters weighing 800g

One letter weighing 1.5kg

Two post cards.

How much did he pay for the postage?

A.sh599

B.sh588

C.sh564

D.sh242

34. The following table shows the postal rates for sending a money order.

VALUE OF ORDER	COMMISSION
Not exceeding 500	Sh 42
501 – 1000	Sh 114
1001 – 3000	Sh 174
3001 – 5000	Sh 209
5001 – 10000	Sh 295
10001 – 20000	Sh 441
20001 – 30000	Sh 617

Gideon sent two money orders, one for sh 17 500 and the other sh 10,000. How much did he pay at the post office altogether?

- A.sh736 B.sh27500 C.sh28236 D.sh28117

35. The table below shows the cost of sending parcels through the post office.

Weight steps	Africa	Europe/Near East	Rest of the world
Up to 1 kg	Sh 940	Sh 1030	Sh 1070
Up to 3kg	Sh 1335	Sh 1390	Sh 1455
Up to 5kg	Sh 1695	Sh 1740	Sh 1920
Up to 10 kg	Sh 2370	Sh 2380	Sh 2755

Karani sent one parcel weighing 2kg to Africa, and another weighing 3kg 600g to near East. How much did he spend?

- A.sh2075 B.sh1335 C.sh3030 D.sh2380

4.4 Practice Test Paper 4 Answers

1	C	7	D	13	C	19	D	25	B	31	A
2	B	8	B	14	B	20	B	26	A	32	A
3	C	9	C	15	B	21	D	27	C	33	B
4	C	10	D	16	D	2	A	28	A	34	C
5	A	11	D	17	B	23	C	29	C	35	A
6	C	12	A	18	A	24	A	30	B		
