

P.5 MATHEMATICAL SCHEME OF WORK FOR TERM THREE

E.L.O: The learner is able to solve practical problems related to utilization of Ugandan currency in everyday life.

<u>The learner is able to use the number line to properly work out problems related to integers</u> <u>The learner is able to solve mathematical problems and puzzles using the knowledge of algebra.</u>

W	Ρ	THEME	TOPIC	S/TO	CONTENT	COMPETENC	ES	LSKIL	MET	L/AID	REF	F
К	D			PIC		SUBJECT	LANGUAG	LS	HODS	S		E
							Ε					N
1	1	Measure	Money	Buyin	Examples	The learner	the learner	Logical	Expla	Price	Mk	
		ment		g and	Kamwine went shopping	-explains	-gives	thinki	nation	tags	Pri	
				sellin	with $30,000/=$ and bought 2	expenditure	correct	ng			Mtc	
				g	tins of blue band at 3000	-explains	sentences		Guide	Shopp	Bk	
					each.	change	involving	Interp	d	ing	5	
					4kg of rice at 2600/= per kg	-solves	new words	retatio	discus	list 6	pag	
					3 loaves of bread at 3,300@	given		n	sion		e	
					a) What was her total	problems					237	
					expenditure?	involving		Proble				
					Blue band Rice Bread	buying and		m				
					3000 2600 3300	selling		solving				
					<u>X 2</u> <u>x 4</u> <u>x 3</u>							
					<u>6,000/= 10,400/= 9,900/=</u>							
					10400							
					9,900							

			<u>+ 6000</u>							
L			<u>26,300/=</u>							
	2	Simpl	<u>Examples</u>	interprets	reads given	Critical	Expos	Chalk	Mk	
		e	1. Find the cost of 8 books if	given	problems	thinki	ition	board	Pri	
		rates	each costs 700/=.	problems	correctly	ng		illustr	Mtc	
			1 book costs $700/=$	correctly		Interp	Guide	ation	bk	
			8 books will costs $700/=$			retatio	d		5	
			$\frac{X \cdot 8}{5}$			n	discov		Pg	
			$\frac{5600/=}{2}$			T	ery		238	
			2. 3 cakes $\cot 2400/=$ what			Interp	Ouesti			
			Is the cost of one cake			retatio	Questi			
			$\frac{1}{2}$ cake cost 2400			п	and			
			$1 \text{ Care will cost } 2400 \div 3 = 800 /=$			Proble	answe			
			0007-			m	r			
						solving	1			
ľ	3		Examples	-interprets	-reads	Logical	Expla	Chalk	Mk	
	-		5 books cost of 1,000/=.	given	given	thinki	nation	board	Pri	
			Find the cost of 12 similar	problems	problems	ng		illustr	bk	
			books	-solves	correctly	U	Guide	ation	5	
			5 books cost 1000/=	given	_	Interp	d		pag	
			1 book will cost <u>1000</u>	problems		retatio	discov		e	
			5			n	ery		239	
			=200/=							
			12 book will cost 200			Proble				
			<u>X 12</u>			m				
			400			solving				
			+ 200							
			2,400/=		1				1	

		2. 10 mangoes cost 5000/= what is the cost of 7 mangoes? 10 mangoes cost 5000/= 1 mango will cost 500 = 500/= 7 mangoes will cost 500 <u>X 7</u> <u>3,500/=</u>						
4	Shopp ing bills and chang e	Example A man had sh. 7000 and bought the following $2\frac{1}{2}$ kg of sugar at $1200/= @$ kg 3 bars of soap at $700/=$ per bar How much change did he have Sugar soap $2\frac{1}{2} = 2 \times 2 + 1$ 700 1800 $2 \times 3 + 2100$ 2100 3900 3 x 600 = 1800/= Change 71000 - 3900 3100/=	-interprets given problems correctly -solves given problems involving bill tables -completes given bill tables correctly	-reads given bills correctly	Critical thinki ng Interp retatio n Proble m solving	Expos ition Questi on and answe r	Chalk board illustr ation	Mk Pri Mtc Bk5 pag e 240

 			1	1				1		-
5		Compl	<u>Examples</u>	-observes	-reads	Analys	Expos	Chalk	Mk	l
		eting	S father gave a shopping bill	the given	given bills	is	ition	board	Pri	l
		bill	below to his children	information	correctly			illustr	Mtc	
		tables	Study it and complete it.	correctly		Critical	Guide	ation	Bk	
			Item Q'ty U.C Total	-solves		thinki	d		5	
			b. band ¹ / ₂ kg Sh.4000a 2000 bread 3 kg 2400	given		ng	discov		Pag	
			t leaves loaves Sh800per Sh.1200	problems			ery		e	
			sugar ¹ / ₄ kg Sh 4800 Sh. <u>4800</u> 4kg Sh1200 <u>10400</u>	involving		Observ	-		241	
			b.band bread	bill tables		ation				
			¹ ⁄ ₂ x4000 800 1200÷ ¹ ⁄ ₄	-completes						
			=2000/= <u>x 3</u> 1200x ¹ / ₄	given bill		Proble				
			<u>2400/=</u> 4800/=	tables		m				
			b)If he gave $20,000/=$ to the	correctly		solving				
			children, what was their	-						
			change							
			20,000							
			<u>-10400</u>							
			<u>9 600/=</u>							
6		Trans	Examples	solves given	reads	Logical	Demo	Text	Mk	
		port	A taxi changes sh. 500 for a	problems	problems	thinki	nstrat	books	Pri	
		charg	journey from Kampala taxi	involving	involving	ng	ion	Chalk	Mtc	
		es	park to Mpererwe.	transport	transport	U		board	Bk	
			How much will two people	-finds the	charges	Interp	Expos	illustr	5	
			pay	change	correctly	retatio	ition	ation	pag	
				correctly	5	n			e	
				5					243	
										l
			1 person pays sh. 500							ľ
			2 people pay sh. 5000x 2							l
			= 1,000/=							l

			2. How much will a man, his wife and 3 children pay? 1 person pays sh. 500 5 people pay sh. 500x 5 = 2500/=						
	7	RELA TING GRAP HS OF DISTA NCE AND CHAR GES	Example The graph below shows bus transport along Bombo – Gulu Road. (pg 244)	-solves given problems involving graphs	-reads given informatio n correctly	Analys is Interp retatio n Proble m solving	Demo nstrat ion Questi on and answe r	Chalk board illustr ation	Mk Pri Mtc Bk 5 Pag e 244
2	1	Findin g profit	Example 1. Mathew bought a goat at sh 20000 and sold it at sh 27000. What profit did Mathew get? Profit = selling Price – Buying Price =27,000- 20,000 =7,000/= 2. Adeke sold a suit at sh. 150,000/= if he bought it at 80,000/= what was his profit ? Profit = S.P – B.P	finds profit correctly	reads given informatio n correctly -constructs correct sentences using profit	Identif ication Proble m solving Logical thinki ng	Expos ition Expla nation	Text books Chalk board illustr ation	Mk pri mtc bk 5 pag e 245

		=150,000-80,000						
2	FINI NG LOS	= 70,000/= DI EXAMPLE Loss B.P – S.P 3. A tailor bought a dress at 48,000=. Find the loss made. Loss = B.P – S.P = 48,000 - 35,000 = 13,000=	-interprets given information correctly -finds loss correctly using given information	-reads given informatio n correctly	Identif ication Critical thinki ng Proble m acking	Expos ition Guide d discov ery	Chalk board illustr ation	Mk Pri Mtc Bk 5 pag e 245
3	Find g the cost price whe give prof and selli g price	in Example Nabisere sold a radio set at sh. 50,000. She made a profit of 10,000/= Find the cost price C.P = S.P – Profit 50,000-10,000 =40,000=	-studies given information correctly -finds the cost price correctly	-reads given informatio n correctly -constructs sentences using cost price	Identif ication Logical thinki ng Proble m solving	Expla nation Questi on and answe r	Chalk board illustr ation	Mk Pri Mtc Bk 5 P 246
4	Find g the cost price whe give loss	in Example Okech sold a goat at 15,000/= and made a loss of 3,000/=. How much did he buy price = S.P + Loss n = 15,000+ 3,000/= =18,000/	-interprets given information correctly -calculates the cost	-compares loss and cost price correctly	Critical thinki ng Proble m solving	Expos ition Questi on and	Chalk board illustr ation	Mk Pri Mtc Bk 5 Pag

		2. Nakikoba sold 4 sacks of sim sim at 220,500/= and made a loss of 13,500/=. What was the cost price of simsim. C.P = S.P + Loss = 220,500+13,500= =234,000/=	price correctly			answe r Guide d discus sion		e 247	
5	METR IC CONV ERSIO NS	Changing cm to mm Example How many millimeters are in 8cm? 1cm = 10mm 8cm = 8x10 =80mm 2.Express 180cm as mm 1cm = 10mm 180x10 =1800mm	-interprets given information correctly -changes cm to mm	-reads given problems correctly	Logical thinki ng Proble m solving Accura cy	Expos ition Questi on and answe r	Chalk board illustr ation	Mk Pri Mtc Bk5 Pag e 153	
6		Expressing MM as CM Examples 1. Express 120mm as cm 10mm = 1 cm $120mm = \underline{120}$ 10 = 12cm 2. How many centimeters are in 210mm? 10mm = 1 cm 210mm = 210 10	-compares mm and cm correctly changes mm to cm correctly	reads sentences involving mm and cm	Critical thinki ng Proble m solving	Expla nation Guide d discus sion	Chalk board illustr ation	MK Pri Mtc Bk 5 Pg 153	

			21cm							
	7		Converting metres to	-compares	-reads	Effecti	Expos	Chalk	Mk	
			centimeters	metres to	given	ve	ition	board	Pre	
			<u>Example</u>	centimetres	informatio	comm		illustr	cise	
			Convert 11m to cm	-changes	n correctly	unicati	Guide	ation	Mtc	
			1m = 100cm	metres to	-gives	on	d		Bk	
			11m =11x100	centimetres	sentences		discov		5	
			=1100cm		involving	Accura	ery		pag	
					metres and	су			e	
					centimeter				154	
3	1		Change 12.8m to cm	-compares	-reads					
			1 m = 100cm	metres and	given					
			12.8 = 12.8 x 100	centimeters	informatio					
			= <u>128</u> x 100	correctly.	n correctly					
			10	changes						
			= 1280cm	metres						
				involving						
				decimals						
				correctly						
	2		Changing centimeters to	-compares	-reads	Critical	Guide	Chalk	Mk	
			metres	metres to	given	thinki	d	board	Pri	
			<u>Example</u>	cm correctly	informatio	ng	discov	illustr	Bk	
			Change 900cm to metres	-changes cm	n correctly		ery	ation	5	
			100cm = 1m	to metres		Proble			Pag	
			$1 \text{cm} = \underline{1}$	correctly		m	Expos		е	
			100			solving	ition		154	
			$900 \text{cm} = \underline{1} \times 900$							l
			100			Accura				
			1x9			су				l
			=9m							l

3	2. Express 4520cm as m 100cm = 1m 4520cm = $\underline{1}x4520$ 100 $\underline{452}$ 10 =45.2 metres Converting kilometers to metres Example 1. Change 15km to metres 1km = 1000m 15km = 15x1000 15,000m 2. Convert 0.15km to metres 1 km = 1000m 0.15km = 0.15 x 1000 $\underline{15} \times 1000$ 100 = 15 x 10 150m	-changes km to metres correctly	compares km and metres orally	Critical thinki ng Proble m solving Accura cy	Guide d discus sion Expos ition	Chalk board illustr ation d	Mk pri mtc bk 5 pag e 155	
4	Expressing metres as kilometers Example Change 8000m to km 1000m = 1 km $1m = \underline{1}$ 1000	-changes metres to kilometres correctly	make oral sentences involving metres and kilometres	Logical thinki ng Proble m solving	Questi on and answe r	Chalk board illustr ation	Mk Pri Mtc Bk 5 pag	

 			-						_
		8000m = <u>1</u> x 8000				Expos		e	ĺ
		1000			Effecti	ition		156	
		1x 8			ve				ĺ
		= 8km			comm				ĺ
		2. Convert 17,500m to km			unicati				ĺ
		1000m = 1 km			on				ĺ
		1m = 1							ĺ
		1000							ĺ
		17500m = <u>1</u> x 17500							ĺ
		1000							ĺ
		<u>175</u>							ĺ
		10							ĺ
		= 17.5km							
5		Comparing metric units	compares	-reads	Logical	Analy	Chalk	Mk	ĺ
		using >, < or = example	units of	given	thinki	sis	board	Pri	ĺ
		1. 60mm < 20cm	length using	symbols	ng		illustr	Mtc	ĺ
		1 cm = 20 x 10	symbols	correctly		Probl	ation	Bk	ĺ
		-200mm		-names		em		5	ĺ
		60< 200mm		given		solvin		Pag	ĺ
		2. ½km 300m		symbols		g		e	ĺ
		$\frac{1}{2} \times 1000 = > 300 \text{m}$		correctly				156	Ĺ
6	Perim	Perimeter is the total	-defines	makes	Identif	Guide	Chalk	Mk	ĺ
	eter is	distance round a polygon	perimeter	sentences	ication	d	board	Pri	ĺ
	the	<u>Example</u>	correctly	involving		discus	illustr	Mtc	ĺ
	total	Find the perimeter of		perimeter	Critical	sion	ation	Bk	ĺ
	distan	P=s +s +s			thinki			5	ĺ
	ce	\times \times =9m+9m+9m			ng	Expla		pag	ĺ
	round	=18m+9				nation		e	ĺ
		9m						157	l
		=27m							ĺ

			P= s+s+s+s (10.5+10.5+10.5+10.5+10.5)cm 21.0+21.0+10.5 42.0+10.5 =52.5cm			Proble m solving		21 22		
	7	Perim eter of rectan gle and squar es	Example Find the perimeter of the rectangle below 12m - 9m P=L+W+L+W =12m+9m+12m+9m =21m+21m =42m P=s+s+s+s =(13+13+13+13)cm =52cm	-identifies rectangles correctly -finds perimeter of a given rectangle correctly	describes a rectangle correctly explains the word "perimeter "	Creativ e thinki ng Proble m solving	Expos ition Questi on and answe r	Chalk board illustr ation	Mk Pri Mtc Bk 5 pag e 157	
4	1	Findin g Perim	Examples Find the perimeter of the figure below.	finds distance around	-spells common words in	Interp retatio n	Expos ition	Chalk board	Mk Pri Mtc	

	etre	5m	combined	the lesson		Questi	illustr	Bk
	of	5m	rectangles	correctly	Critical	on	ation	5
	other	9m A = 5m	correctly		thinki	and		pag
	polygi	<u> </u>			ng	answe		e
	n	10m				r		
		P = s + s + s + s + s + s			Proble			
		= (10+4+5+5+5+9)m			m	Demo		
		(14+10+14)m			solving	nstrat		
		=38m				ion		
2	Findin	<u>Example</u>	-finds the	-reads	Interp	Questi	Chalk	Mk
	g the	The perimetre of a	missing side	given	retatio	on	board	Pri
	missi	rectangle is 30cm. if its	ofa	informatio	n	and	illustr	Mtc
	ng	length is9cm, find the width	rectangle	n correctly		answe	ation	Bk5
	side		given		Logical	r		Pag
	of a	P=30cm w	perimeter		thinki			e
	rectan				ng	Expos		158
	gle	9cm				ition		
	wen	Let the width be w			Proble			
	given				m			
	the				solving			
	perim							
	eter							
3	Findin	Area is the total space	-interprets	names	Critical	Expla	Chalk	mК
	g te	covered or occupied by an	given	given	thinki	nation	board	Pri
	area	object	information	triangles	ng		illustr	Mtc
	ofof	<u>Examples</u>	correctly	correctly		Guide	ation	Bk
	squar	Calculate the area of a	-finds area		Interp	d		5
	es	rectangle whose length is	of a given		retatio	discus		Pag
	rectan	9cm and width 5m	triangle		n	sion		e
	gle	5m	correctly					159

		9m A = L X W = 9m x 5m $= 45m^2$ 2. Find the area of the square below			Proble m solving			- 160	
		$8m$ $8m$ $A = s x s$ $=8m x 8m$ $= 64m^{2}$							
4	Findin g the area of triang le	Example Calculate the area of the triangle below. $10m \xrightarrow{1}{7m} 9m$ 18m	names parts of a given triangle correctly -finds area of a given triangle correctly	names given triangles correctly	Effecti ve comm unicati on Proble m solving	Expos ition Guide d discus sion	Chalk board illustr ation	Mk Pri Mtc Bk5 pag e 161	
5	Findin g the area of combi ned	Example Find the area of the figure below 6cm 5cm y	-recognizes combined figures -finds area of combines	reads given informatio n correctly	Logical thinki ng	Demo nstrat ion Expos ition	Chalk board illustr ation	Mk Pri Mtc Bk 5	

	figure s	3cm $9cm$ Step1 find the value of the unknown sides X= 9cm-6cm y= 5cm - 3cm = 2cm Split 1 divide the figure e.g $6cm$ $2cm \qquad 3m$ $9cm$ $A= L x W \qquad A= L x W$ $6cm x 2cm \qquad 9cm x 3cm = 12cm^2 = 27cm^2$ $Total area = A + B = 12cm^2 + 27cm^2 = 39cm^2$	figures correctly		Proble m solving Accura cy			Pag e 164 - 165
6	Word probl ems involv ing area	Examples The area of a triangle is 48 cm^2 . If its base is 12cm, find the height. Let the height be k $A = \frac{1}{2} \text{ x b x h}$ $48 = \frac{1}{2} \text{ x12 xk}$ $\underline{48} = \underline{6} \text{ k}$	-reads given word problems involving area correctly -finds the missing side	-reads given word problems correctly	Interp retatio n Logical thinki ng	Demo nstrat ion Expos ition	Chalk board illustr ation	Mk Pri Mtc Bk 5 Pag e 165

			6 6 8cm = k	of a rectangle given area		Proble m solving	Guide d discov ery			
5 1		Findin g area of shade d region s/ parts	Examples1. Find the area of the shaded part $3cm$ $6cm$ $8cm$ $10cm$ $8cm$ $10cm$ $10cm$ Area of outer area of the Figure $A = L x W$ $10cm x 8cm$ $10cm x 8cm$ $6cm x 3cm$ $=80cm^2$ $= 18cm^2$ Shaded area $= 80cm^2$ $\frac{-18cm^2}{62cm^2}$	-recognizes given figures correctly -finds area of shaded regions in given rectangles	-names given regions correctly	observ ation analysi s proble m solving accura cy	guide d discus sion questi on and answe r	Chalk board illustr ation	Mk Pri Mtc Bk5 pag e 166 - 167	

5	1			2. Find the area of the shaded region 7 cm 4 c 12 cm Area of \Box area of \triangle A = L x W A = $\frac{1}{2}$ xbxh 12 cm x7 cm $\frac{1}{2}$ x6 cm x4 = 84 cm ² 1x3x4 = 12 cm ² Area of shaded part = 84 cm ² -12 cm ²	recognizes given figures correctly -finds area of shaded regions in given rectangles	names given regions correctly					
	2	Length mass capacit y	Total surfac e area	Find the total surface area 3cm 4cm 6cm 2(LxW) + 2(L x H) + 2 (W xH) 2(6x3) + 2(6x4)+2(4x3) (2x18)+(2x24)+(2x12) 36cm +48cm +24cm $108cm^2$	-finds the total surface area of the cuboid writes the given units correctly	-reads and interprets the words problems involving surface area on a cuboid	recitati on recogn ition critical thinki ng	Guide d discus sion Brain storm iest Questi on and	Chalk board illustr ation	Mk Pri Mtc Bk 5 Pag e 170	

									_
					proble m	answe r			
					solving				
3	Chan ing kilon eters to gram	$\begin{array}{c c} \mathbf{Example} \\ \hline Change 3\frac{1}{2}kg \text{ to grams} \\ \hline KG & HG & DG & G & GG & CG & MG \\ \hline 1 & 0 & 0 & 0 & & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 & 0 & 0 & 0 & & \\ \hline 1 &$	-identifies the order of metallic units -changes mixed numbers to improper fractions -converts kilograms to grans and vice versa	-reads and interprets word problems involving mass	Identif ication Analys is Proble m solving	Guide d discov ery Guide d discus sion	Text books Chalk board illustr ation	Mk Pri Mtc Bk 5 262	
4	Expro ssing gram as kilog ams	$\begin{array}{rcl} & \underline{Example} \\ & Change 300g to kg \\ & 1000g = 1 kg \\ & 1g & = 1 \\ & 1000 \\ & 300g = 1 x 300 \\ & 1000 \\ & 3 \\ & 100 \\ & 0.3kg \\ 2. \ Express 3,250g to kg \\ & 100g = 1kg & = 325 \\ & 1g = 1kg & 100 \\ & 1000 \end{array}$	-expresses gramd as kilograms correctly	-reads and interprets word problems involving mass	Creativ e thinki ng Proble m solving	Guide d discus sion Questi on and answe r	Chalk board illustr ation	Mk Pri Bk 5 Pag e 262	

		3250 = <u>1</u> x 3250 = 3.25kg 1000						
5	Expre ssing litres as millili ters	Examples KL HI DI L DL CL ML I 1 0 0 0 1. Change 4l to millilitres 1 0 0 0 1. Change 4l to millilitres 1 1 0 0 0 1. Change 4l to millilitres 1 1 0 0 0 1. Change 4l to millilitres 1 1 0 0 0 4l = 4x1000 =4000ml 2. Express 0.25L as ml 11 11 1000m 2. Express 0.25L as 1000 25 x 1000 25 x 1000 100 =250ml	-compares litres with mililitres expresses litres as mililitres and vice versa	reads and interprets word problems involving capacity	Recog nition Logical thinki ng Proble m solving	Expos ition Guide d discov ery	Text books Chalk board illustr ation	Mk Pri Mtc Bk 5 pag e 263
6	Expressing millili tres as litres	Example Change 5000ml as litres 1000ml = 1l 1ml = 1 1000 5000ml = 1x 5000 1000 =5l 2. Express 4,200ml as l 1000ml = 1l 1ml = 1 1000 4200ml = 1x 4200	-compares litres with mililitres expresses litres as mililitres and vice versa	reads and interprets word problems involving capacity	Critical thinki ng Guided discus sion	Expos ition Guide d discus sion	Text books Chalk board	Mk Pri Mtc Bk 5 Pag e 263

					10 =4.21							ļ
	7	Numerac y	Intege r	showi ng intege rs on a numb er line	Anumberline zero (neutral) -ve integers +ve integers -5 -4 -3 -2 -1 0 1 2 3 4 5 We count spaces to know the movement and follow the arrows. +4 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 2. Show +5 on a number line +5 -3 -2 -1 0 1 2 3 4 5 6	-describes a number line -draws a number line -identifies positive and negative integers	describes positive and negative integers on a number lines orally	Effecti ve comm unicati on Exposi tion	Expla nation Guide d discus sion	Chalk board illustr ation	Mk Pri Mtc Bk 5 Pag e 98	
6	1	numerac y	integer	comp ositio n of intege rs	use ., < or = to compare integers examples i) -5 < 5 ii) 0> -18 iii) +10 = 10 note: zero and all positive intergers are greater than all negative integers	uses symbols >,< or = to compare integers	explains less than or equal to to compare given part of integers	accura cy effecti ve comm unicati on	expos ition demo nstrat ion questi on and	chalk board illustr ation	Mk Pri Boo k 5 pag e 99	

							proble m solving confid ence	answe r illustr ation			
2	CC OS N Ir rs	omp sitio of ntege s	Arranging integers Arrange e.g 0, -2, 2, 4, -1, 3, 5, in ascending order. -3 -2 -1 0 1 2 3 4 5 6 Correct order. -2 -1 0 1 2 3 4 5 Note: Any number on the left of the other is smaller than the one to the right	he	arranges integers in order -arranges integers in ascending or descending order	-describes what "ordering of integers" is explains ascending and descending order	Effecti ve comm unicati on Proble m solving Accura cy	Expos ition Demo nstrat ion Questi on and answe r	Chalk board illustr ation	Mk Pri Mtc Bk 5 pag e 99	
3	Ir es in rs	nvers s of ntege s	Inverse is the opposites of given integers Example Find the inverse of +6 Let the inverse be j J + 6 = 0 J + 6 - 6 = 0 - 6 J = -6	fa	-finds the inverse of given integers correctly	-defines the term "inverse" correctly	Effecti ve comm unicati on Proble m solving	Expla nation Questi on and answe r	Chalk board illustr ation	Mk Pri Mtc Bk 5 pag e 100	
4	A on in	dditi n of ntege	Example 1.add +2 ++3 b		adds integers using	-describes the addition of	Critical thinki ng	Guide d	Chalk board	Mk Pri Mtc	

		rs on a numb er line	$\begin{array}{c} a \\ -2 & -1 & 0 & 1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\ \hline 2. & +2 & +-5 \\ & & & -5 \\ \hline & & & & -2 \\ -9 & -8 & -7 & -6 & -5 & -4 & -3 & -2 & -1 & 0 & 1 & 2 \\ \hline -9 & -8 & -7 & -6 & -5 & -4 & -3 & -2 & -1 & 0 & 1 & 2 \\ \hline & & & & & & & & & & & & & \\ \hline \end{array}$	number lines	integers on a number line	Proble m solving Accura cy	discov ery Questi on and answe r	illustr ation	Bk5 pag e 103 - 104
5		SUBT RACTI ON OF INTE GERS ON A NUMB ERLIN E	Examples Subtact -43 Subtact -43 -5 -4 -3 -2 -10 - 1 - 2 -3 -4 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	-subtracts integers using number lines	-describes the subtraction of integers on a number line	Effecti ve comm unicati on Logical thinki ng Proble m solving	Guide d discus sion Expos ition Demo nstrat ion	Chalk board illustr ation	Mk Pri Boo k 5 pag e 105
6		Solvin g simpl e word probl em	Examples Show these expressions using integers 1. A shopkeeper lost sh. 10. -10/= 2. Annet did not have any money 0	-solves simple word problems involving integers	-reads and interprets questions -shows the expression using integers	Interp retatio n Logical thinki ng	Demo nstrat ion Questi on and	Chalk board illustr ation	Mk Pri Mtc Bk 5 Pag

			3. Two steps forward +2 4. 3 metres below the ground -3			Proble m solving Effecti ve comm unicati on	answe r		e 96
	7	Writi ng mathe matic al state ments	Write the mathematical statements a -3 -2 -1 0 1 2 3 4 c A=+3 b=-5 c=-2 Mathematical statement A + b = c +3 + -5 -2	-recognizes the arrow -identifies the first movement that starts from zero -writes the mathematic al statement	-names the drawn arrows on a number line -writes the integers represente d by arrows correctly	Identif ying integer s Proble m solving	Chalk board illustr ation Guide d discus sion	Chalk board illustr ation Guide d discus sion	Mk Pri Mtc Bk 5 Pag e 109
7	1	Additi on of intege rs	Addition of integers without a number line Note: (-) $x(-) = +$ (+) $x(+) = +$ (-) $x(+) = -$ (+) $x(-) = -$ Work out $-ve + ve$ $+3 + (-)4$ $-8 + (+)12$ $+3 - 4$ $-8 + 12$ $+3 - 4$ $-8 + 12$ $+3 - 4$ $-8 + 12$ $+3 - 4$ $-8 + 12$ $+3 - 4$ $-8 + 12$ $+3 - 4$ $-8 + 12$	adds integers without number lines -multiplies signs correctly	identifies the signs properly and correctly names the signs correctly	Critical thinki ng Accura cy	Obser vation Questi on and answe r	Chalk board illustr ation	Mk Pri Mtc Bk 5 pag e 111

				+			Proble m solving				
2		Intege r	Subtr action of intege rs	Subtraction of integers without using a number line -373-4-11 0-15 +27-+5+1812 27-5-18+12 =22=30 Working +ve ve +7+-4++ +3+++ +3	-multiplies the signs to get a single sign	-identifies the signs properly and correctly	Critical thinki ng Proble m solving	Guide d discus sion Expla nation	Text books Chalk board illustr ation	Mk Pri Mtc Boo k 5 pag e 112	
3	ALGEBR A		COLL ECTIN G LIE TERM S	<u>Collecting like terms</u> e.g 5 trees + 7 trees - 3 trees = 12t - 3t = 9t II 6 eggs + 8 eggs - 4 eggs 6e + 8e - 4e = 14e - 4e = 10e	identifies the like and un like terms together -adds and subtracts like terms	-identifies like and unlike terms -reads like terms and un like terms correctly	Identif ication Explan ation	Questi on and answe r	Real object s e.g pens books Chalk board illustr ation	Mk Pri Mtc boo k5 pag e 267	

4			Formi	Forming algebraic	-forms	-reads	Interp	Demo	Chalk	Mk
			ng	expressions	algebraic	mathemati	retatio	nstrat	board	Pri
			algebr	-4 more than a = a + 4	expression	cal	n	ion	illustr	Mtc
			aic	-x less than 12 = 12 $-x$		expression			ation	Boo
			Expre	A number added to 10		-writes the	Logical	Expos		k 5
			ssions	10+n		algebraic	thinki	ition		pag
				3 subtracted from a number		expression	ng			e
				n-3						270
5			Substi	<u>To substitute to replace</u>	-replaces	-explains	Critical	Guide	Text	Mk
			tution	Given that a=2 b= 3 c=4	the letters	substitutio	thinki	d	book	Pri
				Find the value of the	with their	n	ng	discus		Mtc
				following.	values	reads the		sion	Chalk	Boo
				a)2a+3c b) 4b + c	carries out	questions	Identif		board	k 5
				2xa+3xc 4 x b +c	the	correctly	ies		illustr	pag
				2x2 + 3x4 4 x 3 +4	operations		values		ation	e
				16 16			of			271
				c) (ab) $-c$ d) $a + b + 2c$			letters			
				axb - c $a + b + 2x c$						
				(2x3) - 4 $2 + 3 + (2 x 4)$						
				6-4 5+8						
				=2 =13						
6	Algebra	Additi	Solvin	An equation is an algebric	identifies	-reads the	Interp	Expla	Real	MK
		on	g	expression	the	equation	retatio	nation	object	Pri
			equati	Sign between	operation	-interprets	n	-	S	Mtc
			on	Solve the equation with	on given	the given	Logical	Questi		Bk
			with	addition	equation	equations	thinki	on	Chalk	5
			additi	N+6 = 13	-uses the	correctly	ng	and	board	Pag
			on	N+6-6 = 13 -6	inverse to			answe	illustr	e
				N= 7	solve the			r	ation	272
				15 + x = 38	equation					

-	1	1	1		1	1	I	I		1	т
				15 - 15 + x = 38 - 15							
				X= 23							L
	7		Word	Word problems involving	forms the	reads and	Proble	Obser	Chalk	Mk	
			probl	addition	equation	interprets	m	vation	board	Pri	
			em	The sum of 2 numbers is 32	solves the	word	solving		illustr	Mtc	
				one of them is 19 find the	equation	problems		Guide	ation	Pag	
				second number.	find the	involving	Effecti	d		e	
				Let the number be k	value of	algebra	ve	discus		273	
				19+k = 32	unknown	_	comm	sion			
				19-19 + k = 32 -19			unicati				
				K = 13			on				
8	1		Subtr	Solving equations with	-identifies	-reads and	Proble	Demo	Text	Mk	
			action	subtraction	the	interprets	m	nstrat	books	Pri	
				Solve i) n – 8 = 3	subtraction	the given	solving	ion		Mtc	
				N -8+8=3+8	operation	equation			Chalk	boo	
				N=11	-solves the	correctly	Accura	Guide	board	k 5	
					equation by		су	d	illustr	pag	
				ii) M- 83 = 47	addition			discus	ation	e	
				M-83+83=47 +83				sion		274	
				M=130							
				iii) D-20 = 13							
				D-20+20 = 13 + 20							
				D= 33							
	2	Word	Solvin	In a class, 12 pupils were	solves	reads and	Critical	Expla	Text	MK	Γ
		proble	g	absent and 48 present	simple	interprets	thinki	nation	books	Pri	
		m	word	How many pupils are in the	word	statemen6s	ng			Mtc	l
			probl	class?	problems	involving	-	Guide	Chalk	Boo	l
			em	Let the pupils in class be x	involving	algebra		d	board	k5	l
			with	X - 12 = 48	algebra					pag	l

			subtr	x-12+12 = 48+12	-forms		Proble	discus	illustr	e	
			action	x = 60	equations		m	sion	ation	275	
					-finds the		solving				
					value of						
					unknown						
	3	Divisio	Solvin	Solving equations by	-solves	-identifies	Accura	Demo	Text	Mk	I
		n	g	<u>dividing</u>	equations	the number	су	nstrat	books	Pri	
			equati	Solve	by dividing	multiplied		ion		Mtc	
			on	4x = 16	-divides the	by the	Logical		Chalk	boo	
			with	Divide each side by 4	two sides by	letter	thinki		board	k 5	I
			divisi	4x = 16	the		ng		illustr	pag	
			on	4 4			0		ation	e	
				X = 4						276	
	4	DIVISI	WOR	A pen costs sh 2p and a	-forms the	-reads and	Critical	Guide	Text	Mk	
		ON	D	book costs sh.p. if the total	equations	interprets	thinki	d	books	Pri	
			PROB	cost of a book and a pen is	-solves	statements	ng	discus		Mtc	
			LEMS	sh. 300	word	involving	0	sion	Chalk	Bk	
			WITH	Find the cost of each	problems	division in	Proble		board	5	
			DIVISI	Pen Book Total	involving	algebra	m	Expla	illustr	pag	I
			ON	2p P 300	division in	C	solving	nation	ation	e	I
					algebra		U			276	I
				2t-p+p=300/=	0			Questi			I
				3p = 300				on			
				3 3				and			
				P = 100/=				answe			
				Pen = 2x100 = 200/=				r			
				Book = $1 \times 100 = 100/=$							
	5	Multipl	Solvin	Solve $x + x = 10$	collects like	-reads the	Logical	Guide	Chalk	Mk	
		ication	g	2x = 10	terms	equations	thinki	d	board	Pri	
			equati	Divide each side by 2		correctly	ng			Mtc	
-				· · ·							

		on	2x = 10	-solves			discus	illustr	Boo	
		with	2 2	equations			sion	ation	k 5	
		multi	X = 5	with					pag	
		plicati	7p + p = 56	multiplicati					e	
		on	<u>8p = 56</u>	on					277	
			8 8							
			P = 6							
6		Word	One of the 4 sides of a	-solves	-reads the	Critical	Expla	Text	Mk	
		probl	square is xcm. if the	word	equations	thinki	nation	books	Pri	
		em	perimeter is 48cm, find x	problems	correctly	ng			Mtc	
			cm	involving				Chalk	Bk	
			P= 4x	algebra		Proble		board	5	
			<u>48</u> cm = <u>4x</u>	-finds the		m		illustr	pag	
			4 4	value of		solving		ation	e	
			12cm =x	unknown					277	
			x= 12cm	numbers						
7	More	Solvin	Solve $2x + 5 = 17$	-adds the	-identifies	Proble	Demo	Text	Mk	
	quatio	g	2x + 5 -5 = 17 -5	like terms	unknown	m	nstrat	books	Pri	
	ns	more	2x = 12	-subtracts	in the given	solving	ion		Mat	
		equati	Divide by 2 on both sides	the known	equation			Chalk	hs	
		on	2x = 12	numbers	-finds the	Accura	Guide	board	Bk	
		with	2 2		value of	су	d	illustr	Pag	
		additi	X = 6		unknown		discus	ation	e	
		on	Ii a 9 2a + 1 = 7				sion		278	
			3a + 1 = 7							
			3a = 7 -1							
			<u>3</u> a = <u>6</u>							
			3 3							
			a= 2							

			1			1	1			•
9	1		Solvin	Solve the equation	collects like	identifies	Proble	Demo	Text	MK
			g	5a-2a-3-12 =0	terms	unknown	m	nstrat	bok	Pri
			more	3a-15=0	-subtracts	in the given	solving	ion		Mat
			equati	3a-15 +15=0+15	like terms	equation			Chak	hs
			on	<u>3</u> a= <u>15</u>	-finds the		Accura	Guide	board	Bk
			with	3 3	value of		су	d	illustr	5
			subtr	a=5	unknown		-	discus	ation	pag
			action					sion		e
										279
	2	Fractio	Solvin	Solve a = <u>9</u>	changes the	-identifies	Logical	Expla	Text	Mk
		ns	g	4	whole	the fraction	thinki	nation	books	Pri
			equati	a= 9	number to a	-finds the	ng			Mat
			on	4 1	fraction	value of		Guide	Chalk	hs
			involv	Using L.C.D of 4 and 1	solves	unknown	Identif	d	board	bk
			ing	4xa = 9x4	equations		ication	discus	illustr	5
			fracti	4 1	involving			sion	ation	pag
			ons	a= 9x4	fractions		Proble			e
				a= 36	-multiplies		m			282
					the two		solving			
					sides by		_			
					L.C.D					