

**MARKING SCHEME FOR MODEL PAPER OF GENERAL
MATHEMATICS CLASS 10**

Section – A

MCQ No.	Key
1	A
2	B
3	D
4	C
5	D
6	B
7	A
8	C
9	B
10	C
11	D
12	C
13	C
14	C
15	D

Section – B

Item Writing Format – RRQs & ERQs

	Grade: X	Subject: G. Math		
SLO No.	SLO Text: Reduce a given rational expression to its lowest terms.			
Item No.	Item		Required Information	
Item Code:	Item: Reduce the expression $\frac{x^2 - 6x + 8}{x^2 - 4}$ to its lowest terms.		Cognitive Level (K/ U/ A)	A
			Difficulty Level (E/ M/ D)	M
Possible Answer	$\frac{x^2 - 6x + 8}{x^2 - 4} = \frac{x^2 - 4x - 2x + 8}{(x)^2 - (2)^2} \quad \left. \vphantom{\frac{x^2 - 6x + 8}{x^2 - 4}} \right\} \text{Step-1}$ $= \frac{x(x-4) - 2(x-4)}{(x+2)(x-2)} \quad \left. \vphantom{\frac{x(x-4) - 2(x-4)}{(x+2)(x-2)}} \right\} \text{Step-2}$ $= \frac{(x-4)(x-2)}{(x+2)(x-2)} \quad \left. \vphantom{\frac{(x-4)(x-2)}{(x+2)(x-2)}} \right\} \text{Step-3}$ $= \frac{x-4}{x+2} \quad \left. \vphantom{\frac{x-4}{x+2}} \right\} \text{Step-4}$		Unit / Topic Name (National Curriculum)	Algebraic Formulas and Applications/ Algebraic Expressions
			*Reference of the Content	Pg. 05, Grade X G. Math, KPTBB
			Item Writer's Name	Saqib Sattar
			Reviewer's Name	
			Checking Hints	Step 1
	01 Mark	01 Mark	01 Mark	01 Mark

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

		Grade: X	Subject: G. Math	
SLO No.	SLO Text: Know the formulas $(a+b)^2 + (a-b)^2 = 2(a^2 + b^2)$ $(a+b)^2 - (a-b)^2 = 4ab$ • Find the value of $a^2 + b^2$ and of ab when the values of $a+b$ and $a-b$ are known.			
Item No.	Item		Required Information	
Item Code:	Item: Find the value of $a^2 + b^2$ when $(a+b) = -3$ and $(a-b) = 6$.		Cognitive Level (K/ U/ A)	A
Possible Answer	We know that: $(a+b)^2 + (a-b)^2 = 2(a^2 + b^2)$ } Step-1 Putting values: $(-3)^2 + (6)^2 = 2(a^2 + b^2)$ } Step-2 $9 + 36 = 2(a^2 + b^2)$ $45 = 2(a^2 + b^2)$ } Step-3 $(a^2 + b^2) = \frac{45}{2}$ } Step-4		Difficulty Level (E/ M/ D)	M
			Unit / Topic Name (National Curriculum)	Algebraic Formulas and Applications/ Algebraic Formulae
			*Reference of the Content	Pg. 14, Grade X G. Math, KPTBB
			Item Writer's Name	Saqib Sattar
			Reviewer's Name	
Checking Hints	Step 1	Step 2	Step 3	Step 4
	01 Mark	01 Mark	01 Mark	01 Mark

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

		Grade: X	Subject: G. Math	
SLO No.	SLO Text: Factorize the expressions of the following types. Type I: $kx + ky + kz$ Type II: $ax + ay + bx + by$ Type III: $a^2 \pm 2ab + b^2$ Type IV: $a^2 - b^2$ Type V: $(a^2 \pm 2ab + b^2) - c^2$ Type VI: $a^4 + a^2b^2 + b^4$ or $a^4 + b^4$ Type VII: $x^2 + px + q$ Type VIII: $a^3 + 3a^2b + 3ab^2 + b^3$ Type IX: $a^3 - 3a^2b + 3ab^2 - b^3$ Type X: $a^3 \pm b^3$			
Item No.	Item		Required Information	
Item Code:	Item: Factorize the expression $x^4 - 12x^2 + 4$.		Cognitive Level (K/ U/ A)	A
Possible Answer	Add and subtract $4x^2$ to make it a perfect square: } $x^4 - 12x^2 + 4 = x^4 - 12x^2 + 4 + 4x^2 - 4x^2$ $= x^4 + 4x^2 + 4 - 12x^2 - 4x^2$ } Step-1 $= [(x^2)^2 + 2(x^2)(2) + (2)^2] - 16x^2$ } Step-2 $= (x^2 + 2)^2 - (4x)^2$ } Step-3 $= (x^2 + 2 + 4x)(x^2 + 2 - 4x)$ } $= (x^2 + 4x + 2)(x^2 - 4x + 2)$ } Step-4		Difficulty Level (E/ M/ D)	D
			Unit / Topic Name (National Curriculum)	Factorization/ Factorization
			*Reference of the Content	Pg. 36, Grade X G. Math, KPTBB
			Item Writer's Name	Saqib Sattar
			Reviewer's Name	
Checking Hints	Step 1	Step 2	Step 3	Step 4
	01 Mark	01 Mark	01 Mark	01 Mark

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

		Grade: X	Subject: G. Math		
SLO No.	SLO Text: Find square root of an algebraic expression by factorization and division.				
Item No.	Item	Required Information			
Item Code:	Item: Find the square root of $25x^2 - 60xy + 36y^2$ by division method.	Cognitive Level (K/ U/ A)	A		
		Difficulty Level (E/ M/ D)	D		
Possible Answer	$ \begin{array}{r} 5x-6y \\ \hline 5x \overline{) 25x^2 - 60xy + 36y^2} \\ \underline{\pm 25x^2} \\ 10x - 6y \\ \hline - 60xy + 36y^2 \\ \underline{\mp 60xy \pm 36y^2} \\ 0 \end{array} $ <p>Hence,</p> $\sqrt{25x^2 - 60xy + 36y^2} = \pm(5x - 6y)$	Step-1	Unit / Topic Name (National Curriculum)	Algebraic Manipulation/ Square Roots of Algebraic Expressions	
		Step-2 & 3			*Reference of the Content
		Step-4	Item Writer's Name	Saqib Sattar	Reviewer's Name
		Checking Hints	Step 1	Step 2 & 3	
			01 Mark	01 + 01 = 02 Marks	01 Mark

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

		Grade: X	Subject: G. Math				
SLO No.	SLO Text: Solve linear inequalities with rational coefficients.						
Item No.	Item		Required Information				
Item Code:	Item: Find the solution set of the inequality $6 \leq y + 3 < 9$, where $y \in R$. Depict it on the real number line.		Cognitive Level (K/ U/ A)	A			
			Difficulty Level (E/ M/ D)	M			
Possible Answer	$6 \leq y + 3 < 9$ $6 - 3 \leq y < 9 - 3$		} Step-1	Unit / Topic Name (National Curriculum)	Linear Equations and Inequalities/ Solution of Linear Inequalities		
	$3 \leq y < 6$					} Step-2	
	The solution set = $\{y y \in R \wedge 3 \leq y < 6\}$		} Step-3				
	Depiction on the real number line.					} Step-4	*Reference of the Content
			Item Writer's Name				Saqib Sattar
			Reviewer's Name				
Checking Hints	Step 1	Step 2	Step 3	Step 4			
	01 Mark	01 Mark	01 Mark	01 Mark			

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

	Grade: X	Subject: G. Math			
SLO No.	SLO Text: Solve a quadratic equation in one variable by <ul style="list-style-type: none"> • Factorization • Completing square 				
Item No.	Item			Required Information	
Item Code:	Item: Solve the quadratic equation $4x^2 - 24x + 20 = 0$ by completing square.			Cognitive Level (K/ U/ A)	A
				Difficulty Level (E/ M/ D)	M
Possible Answer	$4x^2 - 24x + 20 = 0$ $4(x^2 - 6x + 5) = 0$ $x^2 - 6x + 5 = 0$			Unit / Topic Name (National Curriculum)	Quadratic Equations/ Solution of Quadratic Equations
	$x^2 - 6x = -5$ Adding $\left(\frac{6}{2}\right)^2 = (3)^2 = 9$ on both sides: $x^2 - 6x + 9 = -5 + 9$ $(x - 3)^2 = 4$				
	Taking square root: $x - 3 = \pm 4$ $x - 3 = 4$ or, $x - 3 = -4$ $x = 4 + 3$ or, $x = -4 + 3$			Item Writer's Name	Saqib Sattar
	$x = 7$ or, $x = -1$ So solution set = $\{7, -1\}$			Reviewer's Name	
Checking Hints	Step 1	Step 2	Step 3	Step 4	
	01 Mark	01 Mark	01 Mark	01 Mark	

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

		Grade: X	Subject: G. Math		
SLO No.	SLO Text: Solve simple real life problems.				
Item No.	Item		Required Information		
Item Code:	Item: The product of two consecutive positive numbers is 56. Find the numbers.		Cognitive Level (K/ U/ A)	A	
			Difficulty Level (E/ M/ D)	D	
Possible Answer	Let the two consecutive positive numbers be x and $x + 1$. According to the given condition: $x(x + 1) = 56$		Step-1	Unit / Topic Name (National Curriculum)	Quadratic Equations/ Simple Real Life Problems on Quadratic Equations
	$x^2 + x = 56$ $x^2 + x - 56 = 0$ $x^2 + 8x - 7x - 56 = 0$				
	$x(x + 8) - 7(x + 8) = 0$ $(x + 8)(x - 7) = 0$		Step-3	*Reference of the Content	Pg. 109, Grade X G. Math, KPTBB
	$x + 8 = 0$ or, $x - 7 = 0$ $x = -8$ or, $x = 7$			Step-4	Item Writer's Name
	But we consider only $x = 7$. So, the two consecutive positive numbers are 7 and 8.		Reviewer's Name		
Checking Hints	Step 1	Step 2	Step 3	Step 4	
	01 Mark	01 Mark	01 Mark	01 Mark	

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

	Grade: X	Subject: G. Math		
SLO No.	SLO Text: Solve a system of two linear equations and related real life problems in two unknowns using <ul style="list-style-type: none"> • Matrix inversion method, • Cramer's rule. 			
Item No.	Item		Required Information	
Item Code:	Item: Solve the following system of linear equations by Cramer's Rule. $3x + 2y = 0$ $4x - 5y = -23$		Cognitive Level (K/ U/ A)	A
			Difficulty Level (E/ M/ D)	M
Possible Answer	The matrix form of the given system is: $\begin{bmatrix} 3 & 2 \\ 4 & -5 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 0 \\ -23 \end{bmatrix}$ or, $AX = B$ Where, $A = \begin{bmatrix} 3 & 2 \\ 4 & -5 \end{bmatrix}$, $X = \begin{bmatrix} x \\ y \end{bmatrix}$ and $B = \begin{bmatrix} 0 \\ -23 \end{bmatrix}$		Unit / Topic Name (National Curriculum)	Matrices and Determinants/ Solution of Simultaneous Linear Equations
			*Reference of the Content	Pg. 153, Grade X G. Math, KPTBB
			Item Writer's Name	Saqib Sattar
			Reviewer's Name	
Checking Hints	Step 1	Step 2	Step 3	Step 4
	01 Mark	01 Mark	01 Mark	01 Mark

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

		Grade: X	Subject: G. Math	
SLO No.	SLO Text: Calculate unknown angle of a triangle.			
Item No.	Item		Required Information	
Item Code:	Item: Angles of a triangle are in the ratio 1:2:3. Find their measures.		Cognitive Level (K/ U/ A)	A
Possible Answer	$\begin{aligned} \text{Sum of three angles of a triangle} &= 180^\circ \\ \text{Ratio between angles} &= 1 : 2 : 3 = x : 2x : 3x \\ \therefore x + 2x + 3x &= 180^\circ \end{aligned}$		Difficulty Level (E/ M/ D)	M
	$\begin{aligned} \Rightarrow 6x &= 180^\circ \\ \Rightarrow x &= 30^\circ \end{aligned}$		Unit / Topic Name (National Curriculum)	Fundamentals of Geometry/ Calculating Unknown Angles
	$\begin{aligned} \text{So,} \\ \text{one angle} &= x = 30^\circ \end{aligned}$		*Reference of the Content	Pg. 162, Grade X G. Math, KPTBB
	$\text{2nd angle} = 2x = 2(30^\circ) = 60^\circ$		Item Writer's Name	Saqib Sattar
	$\text{3rd angle} = 3x = 3(30^\circ) = 90^\circ$		Reviewer's Name	
Checking Hints	Step 1	Step 2	Step 3	Step 4
	01 Mark	01 Mark	01 Mark	01 Mark

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

	Grade: X	Subject: G. Math	
SLO No.	SLO Text: Construct a rectangle when <ul style="list-style-type: none"> • Two sides are given. • Diagonal and one side are given. 		
Item No.	Item	Required Information	
Item Code:	Item: Construct a rectangle $ABCD$ when $m\overline{AB} = 5cm$ and $m\overline{BC} = 4cm$.	Cognitive Level (K/ U/ A)	A
		Difficulty Level (E/ M/ D)	M
Possible Answer	Steps of Construction: 1. Draw \overline{AB} measuring 5 cm . 2. At B , draw $\overline{BX} \perp \overline{AB}$. 3. Cut off \overline{BC} , such that $m\overline{BC} = 4cm$. 4. With A and C as centers, draw arcs of radii 4 cm and 5 cm respectively to meet each other at point D . 5. Join D to A and C . 6. $ABCD$ is the required rectangle.	Unit / Topic Name (National Curriculum)	Practical Geometry/ Construction of Quadrilateral
		*Reference of the Content	Pg. 230, Grade X G. Math, KPTBB
		Item Writer's Name	Saqib Sattar
		Reviewer's Name	
Checking Hints	Construction	Steps of Construction	
	02 Marks	02 Marks	

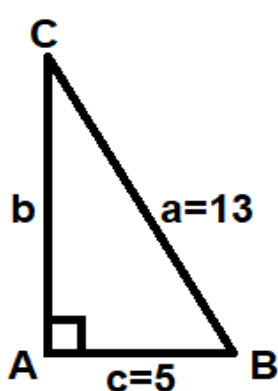
*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

		Grade: X	Subject: G. Math	
SLO No.	SLO Text: Solve right angled triangle using Pythagoras theorem.			
Item No.	Item		Required Information	
Item Code:	Item: In a right-angled triangle ABC , $m\angle A = 90^\circ$, $m\overline{BC} = 13$ and $m\overline{AB} = 5\text{cm}$. Find $m\overline{AC}$.		Cognitive Level (K/ U/ A)	A
			Difficulty Level (E/ M/ D)	M
Possible Answer	<p>Step-1: Figure</p>  <p>Let $m\overline{AB} = c = 5$, $m\overline{BC} = a = 13$ and $m\overline{AC} = b$.</p> <p>Applying Pythagoras theroem: $a^2 = b^2 + c^2$ } Step-2</p> <p>$b^2 = a^2 - c^2$ $= (13)^2 - (5)^2$ $= 169 - 25$ $= 144$ } Step-3</p> <p>$b = \sqrt{144}$ $b = 12$ $\therefore m\overline{AC} = 12$ } Step-4</p>		Unit / Topic Name (National Curriculum)	Areas and Volume/ Pythagoras Theorem
			*Reference of the Content	Pg. 244, Grade X G. Math, KPTBB
			Item Writer's Name	Saqib Sattar
			Reviewer's Name	
			Checking Hints	Step 1 (Figure)
	01 Mark	01 Mark	01 Mark	01 Mark

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

	Grade: X	Subject: G. Math		
SLO No.	SLO Text: Solve real life problems related to the volume of cube, cuboid, cylinder, cone and sphere.			
Item No.	Item		Required Information	
Item Code:	Item: Find the total cost of constructing a stage for a function at Rs. 2200 per m^3 , if the stage is 7m long, 4m wide and 0.8m high.		Cognitive Level (K/ U/ A)	A
			Difficulty Level (E/ M/ D)	D
Possible Answer	Given that, $l = 7m$, $w = 4m$ and $h = 0.8m$.		Unit / Topic Name (National Curriculum)	Areas and Volume/ Word Problems Relating to Volume
	Volume of stage = $l \times w \times h$	Step-1		
	$= 7 \times 4 \times 0.8$	Step-2	*Reference of the Content	Pg. 281, Grade X G. Math, KPTBB
	$= 22.4m^3$			
	\therefore Cost per $m^3 =$ Rs. 2200	Step-3		
\therefore Total cost = 2200×22.4				
$=$ Rs. 49280	Step-4	Reviewer's Name		
Checking Hints	Step 1	Step 2	Step 3	Step 4
	01 Mark	01 Mark	01 Mark	01 Mark

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Section-C

Item Writing Format – RRQs & ERQs

		Grade: X	Subject: G. Math					
SLO No.	SLO Text: Use factor theorem to factorize a cubic polynomial.							
Item No.	Item				Required Information			
Item Code:	Item: Factorize the expression $x^3 + 2x^2 - 3x - 4$ by Factor Theorem.				Cognitive Level (K/ U/ A)	A		
					Difficulty Level (E/ M/ D)	D		
Possible Answer	$P(x) = x^3 + 2x^2 - 3x - 4$ Put $x = 1, -1, 2, -2$ in $P(x)$, we see that at $x = -1$, $P(x) = 0$.				} Step-1 & 2			
					} Step-3		Unit / Topic Name (National Curriculum)	Factorization/ Factorization of a Cubic Polynomial
	$P(-1) = (-1)^3 + 2(-1)^2 - 3(-1) - 4$ $= -1 + 2 + 3 - 4$ $= 0$						*Reference of the Content	Pg. 46, Grade X G. Math, KPTBB
					Thus $x + 1$ is a factor of $P(x)$. The remaining factors can be found through direct division.			
	$ \begin{array}{r} x^2 + x - 4 \\ \hline x + 1 \overline{) x^3 + 2x^2 - 3x - 4} \\ \underline{\pm x^3 \pm x^2} \\ x^2 - 3x - 4 \\ \underline{\pm x^2 \pm x} \\ -4x - 4 \\ \underline{\mp 4x \mp 4} \\ 0 \end{array} $							
					} Step-6			
} Step-7								
Hence, $x^3 + 2x^2 - 3x - 4 = (x + 1)(x^2 + x - 4)$				} Step-8				
Checking Hints	Step 1 & 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	
	01 + 01 = 02 Marks	01 Mark	01 Mark	01 Mark	01 Mark	01 Mark	01 Mark	

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

Item Writing Format – RRQs & ERQs

		Grade: X			Subject: G. Math			
SLO No.	SLO Text: Verify the result $(AB)^{-1} = B^{-1}A^{-1}$.							
Item No.	Item					Required Information		
Item Code:	Item: Verify $(AB)^{-1} = B^{-1}A^{-1}$ for the matrices: $A = \begin{bmatrix} 3 & -2 \\ 5 & -3 \end{bmatrix}, B = \begin{bmatrix} 4 & -3 \\ 6 & 1 \end{bmatrix}.$					Cognitive Level (K/ U/ A)	A	
Possible Answer	$L.H.S = (AB)^{-1}$ $AB = \begin{bmatrix} 3 & -2 \\ 5 & -3 \end{bmatrix} \begin{bmatrix} 4 & -3 \\ 6 & 1 \end{bmatrix}$ $= \begin{bmatrix} 3 \times 4 + (-2) \times 6 & 3 \times (-3) + (-2) \times 1 \\ 5 \times 4 + (-3) \times 6 & 5 \times (-3) + (-3) \times 1 \end{bmatrix} = \begin{bmatrix} 0 & -11 \\ 2 & -18 \end{bmatrix}$					Difficulty Level (E/ M/ D)	M	
						Unit / Topic Name (National Curriculum)	Matrices and Determinants/ Multiplicative Inverse of Matrix	
	$ AB = 0 + 22 = 22, Adj(AB) = \begin{bmatrix} -18 & 11 \\ -2 & 0 \end{bmatrix}$ $\therefore (AB)^{-1} = \frac{1}{ AB } Adj(AB)$					*Reference of the Content	Pg. 143, Grade X G. Math, KPTBB	
						Item Writer's Name	Saqib Sattar	
	$\therefore (AB)^{-1} = \frac{1}{22} \begin{bmatrix} -18 & 11 \\ -2 & 0 \end{bmatrix} = \begin{bmatrix} -\frac{9}{11} & \frac{1}{2} \\ -\frac{1}{11} & 0 \end{bmatrix} \rightarrow (1)$					Reviewer's Name		
	$A^{-1} = \frac{1}{ A } Adj(A) = \frac{1}{1} \begin{bmatrix} -3 & 2 \\ -5 & 3 \end{bmatrix} = \begin{bmatrix} -3 & 2 \\ -5 & 3 \end{bmatrix}$							
$B^{-1} = \frac{1}{ B } Adj(B) = \frac{1}{22} \begin{bmatrix} 1 & 3 \\ -6 & 4 \end{bmatrix}$								
					$B^{-1}A^{-1} = \frac{1}{22} \begin{bmatrix} 1 & 3 \\ -6 & 4 \end{bmatrix} \begin{bmatrix} -3 & 2 \\ -5 & 3 \end{bmatrix}$ $= \frac{1}{22} \begin{bmatrix} 1 \times (-3) + 3 \times (-5) & 1 \times 2 + 3 \times 3 \\ (-6) \times (-3) + 4 \times (-5) & (-6) \times 2 + 4 \times 3 \end{bmatrix}$ $= \frac{1}{22} \begin{bmatrix} -18 & 11 \\ -2 & 0 \end{bmatrix} = \begin{bmatrix} -\frac{9}{11} & \frac{1}{2} \\ -\frac{1}{11} & 0 \end{bmatrix} \rightarrow (2)$			
From (1) and (2), it is verified that $(AB)^{-1} = B^{-1}A^{-1}$.								
Checking Hints	Step 1	Step 2	Step 3	Step 4	Step 5			
	01 Mark	01 Mark	01 Mark	01 Mark	01 Mark	01 Mark	01 Mark	01 Mark

*Reference:

		Grade: X	Subject: G. Math	
SLO No.	SLO Text: Draw <ul style="list-style-type: none"> • Angle bisectors, • Altitudes, • Perpendicular bisectors, • Medians, of a given triangle and verify their concurrency.			
Item No.	Item		Required Information	
Item Code:	Item: Construct a $\triangle ABC$ with $m\overline{AB} = 6\text{cm}$, $m\angle A = 60^\circ$ and $m\angle B = 75^\circ$. Also draw its medians and verify their concurrency.		Cognitive Level (K/ U/ A)	A
			Difficulty Level (E/ M/ D)	D
Possible Answer	Steps of Construction: 1. Draw \overline{AB} measuring 6 cm. 2. At A, construct an angle BAX measuring 60° . 3. At B, construct an angle ABY measuring 75° . 4. \overline{AX} and \overline{BY} are intersecting at C. 5. The resulting figure is the required triangle ABC . 6. Find midpoints D, E, F of sides $\overline{AB}, \overline{BC}$ and \overline{CA} respectively. 7. Join E to A, F to B and D to C . 8. $\overline{AE}, \overline{BF}$ and \overline{CD} are the required medians. We observe that all the three medians pass through a point O which verifies the concurrency of the medians of a triangle.		Unit / Topic Name (National Curriculum)	Practical Geometry/ To Draw Medians of a Triangle
			*Reference of the Content	Pg. 228, Grade X G. Math, KPTBB
			Item Writer's Name	Saqib Sattar
			Reviewer's Name	
			Checking Hints	Construction
	04 Marks	04 Marks		

*Reference:

Page Number, Book Title, Author's Name and Publisher

Examples: Pg. 129, Grade V English, KPK Textbook Board

OR Pg. 36, Grade 8 Oxford Progressive English, Rachel Redford, OUP

