

APOLLO

Linear Equations and Inequalities in one variable

FBISE Mathematics Class 9 (SSC-I)

Domain A: Numbers and Algebra

18 questions | questions

Original FBISE question crops. National Curriculum 2022-23 topic.

10	On solving $\frac{x}{2} - \frac{3}{2} \geq 2$, the value of x is:	$x \leq 5$	$x \geq 5$	$x \geq 7$	$x \leq 7$
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11	Which value of y satisfies the equation $0.6y + 1.2 = 3$?	0.3	1.08	3	7
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OR	Solve the inequality $-5 < \frac{2x+7}{3} \leq 1$ and represent the solution set on the real line.	3
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Solve the equation and represent the solution on a real number line: $\frac{3x-5}{4} = \frac{2x+1}{3}$	04
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Solve the inequality, and plot the solution on real number line.	04
$3x + 5 \leq 5 - 3(x + 2) \leq 6x - 10 \quad \forall x \in \mathcal{R}$	

(iv)	Solve the given linear equation and represent the solution on a real number line:	04
	$\frac{5}{2}x - \frac{7}{2} = \frac{3}{4}x + \frac{5}{2}$	

(ix)	Solve the inequality, and plot the solution on real number line.	04
	$-3x + 11 \geq 5(x + 7) - 32 \geq 3x - 1 \quad \forall x \in \mathcal{R}$	

(iv)	Solve the inequality: $2x - 3 < x + 1$ and $3x - 1 \geq 2x + 8$.	04
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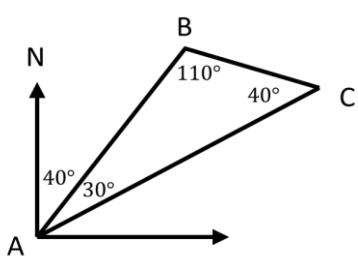
(iv)	درج ذیل عدم مساوات کو حل کریں اور حل کو نمبر لائن پر ظاہر کریں:	
	$-3x + 11 \geq 5(x + 7) - 32 \geq 3x - 1 \quad \forall x \in \mathcal{R}$	

Solve the inequality, and plot the solution on real number line. $3x + 5 \leq 5 - 3(x + 2) \leq 6x - 10 \quad \forall x \in \mathbb{R}$	3+1	OR	Factorize: $(x^2 + 5x + 4)(x^2 + 5x + 6) - 3$	04
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$-2x \leq 4$ gives:	$x \leq -2$	$x \geq -2$	$x \leq -1$	$x = -1$
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Solve the inequality: $2x - 3 < x + 1$ and $3x - 3 \geq 2x + 8$	04
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v.	Solution of inequality $-2x - \frac{1}{2} \leq \frac{3}{2}$ is:	$x > -1$	$x < -1$	$x \geq -1$	$x \leq -1$
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Q.2	Question	Mark
i.	Simplify the expression $\left[(125)^{\frac{1}{3}} \times (25)^{\frac{1}{2}} + (64)^{\frac{2}{3}} \times 6 + (8)^{\frac{2}{3}} \right]^{\frac{-2}{3}}$	4
ii.	The attached figure shows the position of three points A, B , and C . State the bearing of: B from A ; A from B ; B from C , and C from B . 	4
iii.	Bani Gala had a population of 10,000 people in the year 2015. The population has been growing exponentially at a rate of 2.5% per year. Using the exponential growth formula $P(t) = P_0 e^{rt}$, apply laws of logarithm to determine the year when population reaches up to 25,000.	4
iv.	Solve the linear equation $\frac{1}{3}(x - 2) + \frac{2 - 3x}{2} = \frac{x + 5}{6}$	4

Solve the double inequality:

درج شدہ مرکب غیر مساوات کو حل کریں۔

$$-5 \leq \frac{4+3x}{2} < 1 \text{ where } x \in \mathbb{R}$$

04

(viii) Solve:

$$|3x-5|+7=11$$

04

Solve the inequality

OR

$$-3 < \frac{5z-7}{2} < 4, \quad z \in \mathbb{R}$$

04

(v) Solve:

$$|4y+1|=9$$

حل کریں:

04

OR