

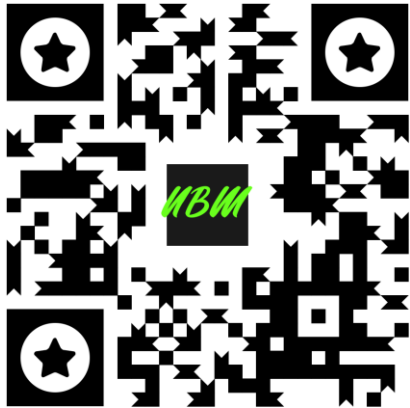
MATHEMATICS

Topic: ALGEBRA, EQUATIONS, AND INEQUALITIES GRADE 10

CAPS ALIGNED

EQUATIONS AND INEQUALITIES

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EQUATIONS, AND INEQUALITIES - GRADE 10

Exercises - A

DBE/NOVEMBER 2015

QUESTION 2

2.1 Solve for x :

2.1.1 $15x^2 - 8 = 14x$

2.1.2 $5^x = \frac{1}{125}$

2.2 The following inequality is given: $3(x+7) < \frac{x}{2} + 1$

2.2.1 Solve for x in the inequality.

2.2.2 Represent your answer to QUESTION 2.2.1 on a number line.

EQUATIONS, AND INEQUALITIES - GRADE 10

Exercises - B

DBE/NOVEMBER 2015

QUESTION 2

2.1 Solve for x :

2.1.1 $15x^2 - 8 = 14x$

2.1.2 $5^x = \frac{1}{125}$

2.2 The following inequality is given: $3(x+7) < \frac{x}{2} + 1$

2.2.1 Solve for x in the inequality.

2.2.2 Represent your answer to QUESTION 2.2.1 on a number line.

EQUATIONS, AND INEQUALITIES - GRADE 10

Exercises - C

DBE/NOVEMBER 2016

QUESTION 2

2.1 Solve for x :

2.1.1 $x(x - 1) = 20$

2.1.2 $\frac{3x - 2}{2} = x + 1$

2.2 Given: $-4 \leq -\frac{1}{2}m < 5$ where $m \in R$

2.2.1 Solve for m .

2.2.2 Write the answer to QUESTION 2.2.1 in interval notation.

2.3 Given: $4x^2 - y^2 = 171$ and $2x - y = 9$

2.3.1 Calculate the value of $2x + y$.

2.3.2 Solve simultaneously for x and y .

EQUATIONS, AND INEQUALITIES - GRADE 10

Exercises - D

DBE/NOVEMBER 2016

QUESTION 2

2.1 Solve for x :

2.1.1 $x(x - 1) = 20$

2.1.2 $\frac{3x - 2}{2} = x + 1$

2.2 Given: $-4 \leq -\frac{1}{2}m < 5$ where $m \in R$

2.2.1 Solve for m .

2.2.2 Write the answer to QUESTION 2.2.1 in interval notation.

2.3 Given: $4x^2 - y^2 = 171$ and $2x - y = 9$

2.3.1 Calculate the value of $2x + y$.

2.3.2 Solve simultaneously for x and y .

EQUATIONS, AND INEQUALITIES - GRADE 10

Exercises - E

DBE/NOVEMBER 2016

QUESTION 2

2.1 Solve for x :

2.1.1 $x(x - 1) = 20$

2.1.2 $\frac{3x - 2}{2} = x + 1$

2.2 Given: $-4 \leq -\frac{1}{2}m < 5$ where $m \in R$

2.2.1 Solve for m .

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2.3 Given: $4x^2 - y^2 = 171$ and $2x - y = 9$

2.3.1 Calculate the value of $2x + y$.

2.3.2 Solve simultaneously for x and y .

EQUATIONS, AND INEQUALITIES - GRADE 10

Exercises - F

DBE/NOVEMBER 2016

QUESTION 2

2.1 Solve for x :

2.1.1 $x(x-1) = 20$

2.1.2 $\frac{3x-2}{2} = x+1$

2.2 Given: $-4 \leq -\frac{1}{2}m < 5$ where $m \in R$

2.2.1 Solve for m .

2.2.2 Write the answer to QUESTION 2.2.1 in interval notation.

2.3 Given: $4x^2 - y^2 = 171$ and $2x - y = 9$

2.3.1 Calculate the value of $2x + y$.

2.3.2 Solve simultaneously for x and y .

ALGEBRA, EQUATIONS, AND INEQUALITIES - GRADE 10

Exercises - G

DBE/NOVEMBER 2017

QUESTION 2

2.1 Given: $4 - 2x < 16$ where $x \in R$

2.1.1 Solve the inequality.

2.1.2 Hence, represent your answer to QUESTION 2.1.1 on a number line.

2.2 Solve simultaneously for x and y :

$$-2x - y = 10 \text{ and } 3x - 4y = -4$$

2.3 Solve for x :

2.3.1 $\frac{x(x-5)}{6} - 1 = 0$

2.3.2 $c = \sqrt{a+2x}$

ALGEBRA, EQUATIONS, AND INEQUALITIES - GRADE 10

Exercises - H

DBE/NOVEMBER 2017

QUESTION 2

2.1 Given: $4 - 2x < 16$ where $x \in R$

2.1.1 Solve the inequality.

2.1.2 Hence, represent your answer to QUESTION 2.1.1 on a number line.

2.2 Solve simultaneously for x and y :

$$-2x - y = 10 \text{ and } 3x - 4y = -4$$

2.3 Solve for x :

2.3.1 $\frac{x(x-5)}{6} - 1 = 0$

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ALGEBRA, EQUATIONS, AND INEQUALITIES - GRADE 10

Exercises - I

DBE/NOVEMBER 2017

QUESTION 2

2.1 Given: $4 - 2x < 16$ where $x \in R$

2.1.1 Solve the inequality.

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$$-2x - y = 10 \text{ and } 3x - 4y = -4$$

2.3 Solve for x :

2.3.1 $\frac{x(x-5)}{6} - 1 = 0$

2.3.2 $c = \sqrt{a+2x}$

END

$$e^{i\pi} + 1 = 0$$

Euler's Identity

SOURCES

- 1. FET CAPS DOCUMENT**
- 2. GRADE 10 EXAMINATION GUIDELINES**
- 3. GRADE 10 DBE/NOVEMBER 2015 -2018**