SLOPE, DISTANCE FORMULA, MIDPOINT FORMULA, AND SYSTEMS OF LINEAR EQUATIONS - PRACTICE TEST | NEW BRUNSWICK NUMBER, RELATIONS AND FUNCTIONS 10 · UNIT E · 25 QUESTIONS

Slope, Distance Formula, Midpoint Formula, and Systems of Linear Equations, 25-question test — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **The slope of the line through 0 comma 0 and 2 comma 6 is**

Question 1

Solve the system $x + y = 10$ and $x - y = 2$. The value of x is

ANSWER

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2 **The slope of the line through 0 comma 1 and 3 comma 10 is**

Question 2

Solve the system $x + y = 10$ and $x - y = 2$. The value of y is

ANSWER

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3 **The slope of the line through 1 comma 2 and 4 comma 11 is**

Question 3

The distance between 0 comma 0 and 3 comma 4 is

ANSWER

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4 **The slope of the line through 0 comma 0 and 4 comma 12 is**

Question 4

The midpoint of 0 comma 0 and 4 comma 6 is written as 2 comma 3. The x coordinate of the midpoint is

ANSWER

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5 **The slope of the line through 2 comma 3 and 5 comma 15 is**

Question 5

The slope of the line through 0 comma 0 and 2 comma 6 is

ANSWER

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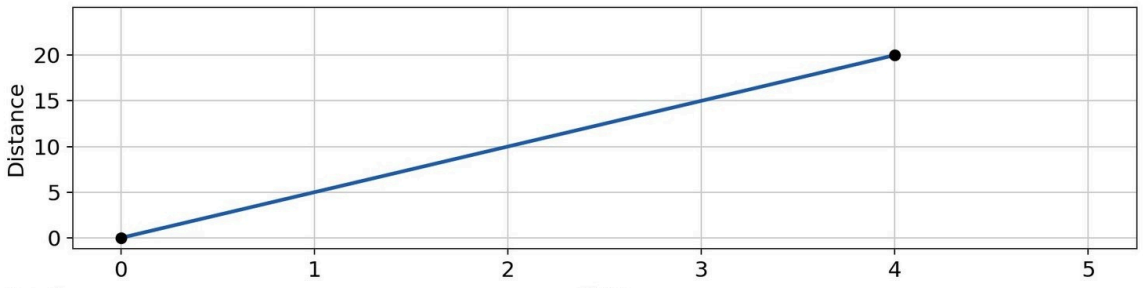
6 The distance between 0 comma 0 and 3 comma 4 is



ANSWER

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7 The distance between 0 comma 0 and 6 comma 8 is

Question 7

The midpoint of 2 comma 4 and 6 comma 10 is written as 4 comma 7. The y coordinate of the midpoint is

ANSWER

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8 The distance between 1 comma 2 and 4 comma 6 is

Question 8

Parallel lines have a system with

A) no solution

B) one solution

C) infinitely many solutions

D) two solutions

ANSWER

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9 The midpoint of 0 comma 0 and 4 comma 6 is written as 2 comma 3. The x coordinate of the midpoint is

Question 9

Substitution solves a system by replacing one variable with an

A) number only

B) graph

C) expression

D) table only

ANSWER

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10

The midpoint of 2 comma 4 and 6 comma 10 is written as 4 comma 7. The y coordinate of the midpoint is

Question 10

The distance formula is based on the

A) area formula

B) Pythagorean theorem

C) angle sum

D) slope formula only

ANSWER

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11

The midpoint of 0 comma 6 and 8 comma 2 is written as 4 comma 4. The x coordinate of the midpoint is

Question 11

The midpoint formula averages the x coordinates and the

A) slopes

B) intercepts

C) y coordinates

D) distances

ANSWER

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12 Solve the system x plus y equals 10 and x minus y equals 2. The value of x is

Question 12

The slope formula uses the change in y divided by the change in

A) x

B) y itself

C) the intercept

D) time only

ANSWER

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13 Solve the system x plus y equals 10 and x minus y equals 2. The value of y is

Question 13

The slope of a line through two points is rise divided by

A) run

B) intercept

C) distance

D) midpoint

ANSWER

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14 **Solve the system x plus y equals 12 and x minus y equals 4. The value of x is**

Question 14

Solve the system $x + y = 12$ and $x - y = 4$. The value of x is

ANSWER

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15 **Solve the system x plus y equals 12 and x minus y equals 4. The value of y is**

Question 15

Solve the system $x + y = 12$ and $x - y = 4$. The value of y is

ANSWER

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16 **The distance between 2 comma 3 and 5 comma 7 is**

Question 16

The distance between 0 comma 0 and 6 comma 8 is

ANSWER

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17 **The midpoint of 1 comma 5 and 7 comma 9 is written as 4 comma 7. The x coordinate of the midpoint is**

Question 17

The midpoint of 0 comma 6 and 8 comma 2 is written as 4 comma 4. The x coordinate of the midpoint is

ANSWER

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18 **Solve the system x plus y equals 20 and x minus y equals 4. The value of x is**

Question 18

The slope of the line through 0 comma 1 and 3 comma 10 is

ANSWER

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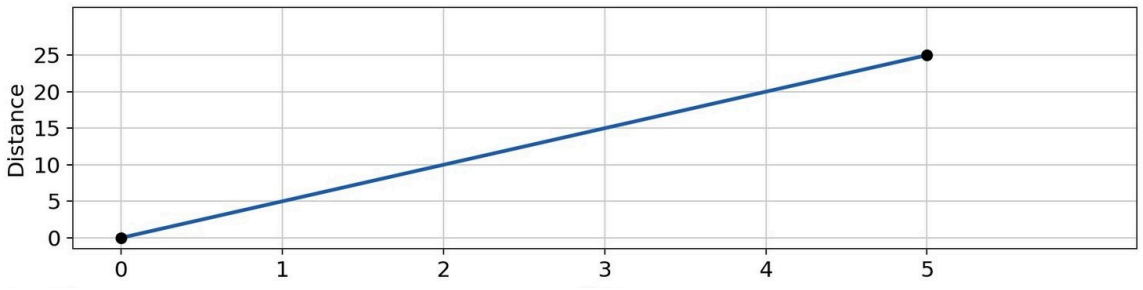
19 **Solve the system x plus y equals 20 and x minus y equals 4. The value of y is**



ANSWER

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20 **The graph shows distance against time through 0 comma 0 and 4 comma 20. The speed in units per time is**

Question 20

The midpoint of 2 comma 2 and 8 comma 8 is written as 5 comma 5. The y coordinate of the midpoint is

ANSWER

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21 **The slope formula uses the change in y divided by the change in**

Question 21

Solve the system $x + y = 20$ and $x - y = 4$. The value of x is

A x

B y itself

C the intercept

D time only

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22 **The distance formula is based on the**

Question 22

Solve the system $x + y = 20$ and $x - y = 4$. The value of y is

A area formula

B Pythagorean theorem

C angle sum

D slope formula only

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23 **The midpoint formula averages the x coordinates and the**

Question 23

The distance between 1 comma 2 and 4 comma 6 is

A slopes

B intercepts

C y coordinates

D distances

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24 A system of linear equations has a solution where the graphs

Question 24

The midpoint of 1 comma 5 and 7 comma 9 is written as 4 comma 7. The x coordinate of the midpoint is

A are parallel

B never meet

C are identical only

D intersect

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25 **Parallel lines have a system with**

Question 25

The slope of the line through 1 comma 2 and 4 comma 11 is

A no solution

B one solution

C infinitely many solutions

D two solutions

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ANSWER KEY

1.	3	**10.**	7	**19.**	8
2.	3	**11.**	4	**20.**	5
3.	3	**12.**	6	**21.**	A
4.	3	**13.**	4	**22.**	B
5.	4	**14.**	8	**23.**	C
6.	5	**15.**	4	**24.**	D
7.	10	**16.**	5	**25.**	A
8.	5	**17.**	4		
9.	2	**18.**	12		

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