ONTARIO PRINCIPLES OF MATHEMATICS, GRADE 10, ACADEMIC (MPM2D) · UNIT B · 25 QUESTIONS

Linear Systems — 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 **Solve the system y = 2x - 1, x + y = 8. The solution is**

- A (3, 5)
- B (-3, 5)
- C (3, -5)
- D (5, 3)

Understand It with Pulse | Flag a mistake

2 **Solve the system y = -x + 1, 3x + 2y = 4. The solution is**

- A (-2, -1)
- B (2, -1)
- C (2, 1)
- D (-1, 2)

Understand It with Pulse | Flag a mistake

3 **Solve the system y = 3x + 10, 2x - y = -8. The solution is**

A (2, 4)

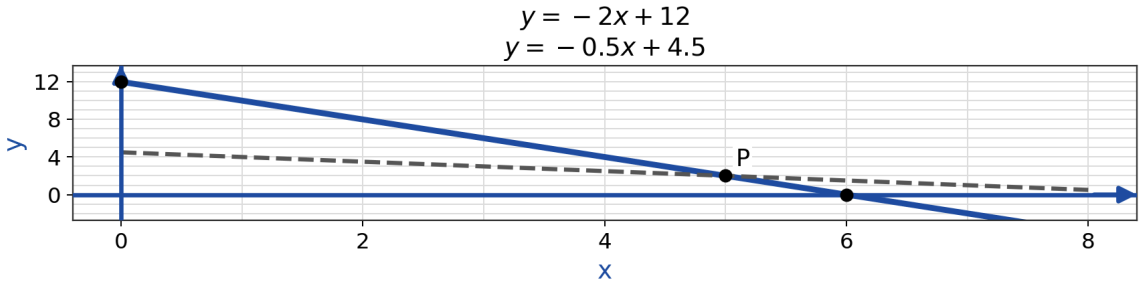
B (-2, -4)

C (-2, 4)

D (4, -2)

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4 **The graph shows the lines y = -2x + 12 and x + 2y = 9 The solution of the system formed by the two lines is**



A (5, 2)

B (2, 5)

C (5, -2)

D (-5, 2)

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Flag a mistake

5 **Solve the system 2x + 3y = 11, 5x + y = 21. The solution is**

- A (4, 1)
- B (-4, 1)
- C (4, -1)
- D (1, 4)

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6 **Solve the system 3x - 2y = -9, 3x + 2y = 15. The solution is**

- A (-1, 6)
- B (1, 6)
- C (1, -6)
- D (6, 1)

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7 **Solve the system x + 4y = 5, 6x = -18. The solution is**

- A (3, 2)
- B (-3, -2)
- C (-3, 2)
- D (2, -3)

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8 **Solve the system -x + 5y = 13, 7x - 2y = 8. The solution is**

- A (-2, 3)
- B (2, -3)
- C (3, 2)
- D (2, 3)

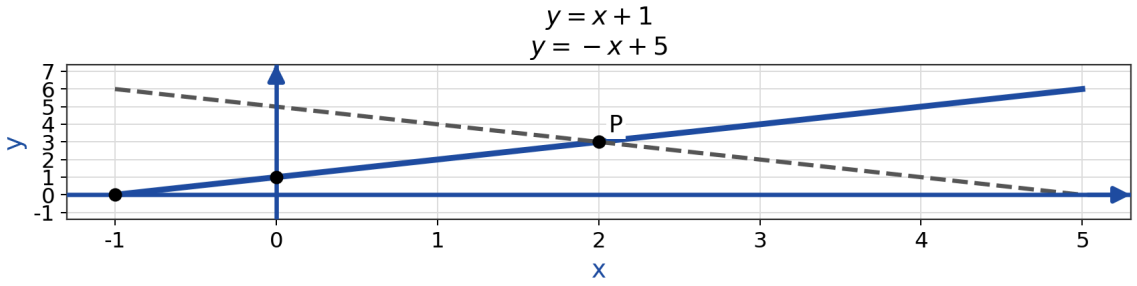
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9 **Solve the system y = x + 4, 2x + 2y = 20. The value of x in the solution is**

ANSWER _____

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10 **The graph shows the lines y = x + 1 and y = -x + 5 The coordinates of P are**



A (3, 2)

B (2, 3)

C (-2, 3)

D (2, -3)

Understand It with Pulse | Flag a mistake

11 **Solve the system y = -3x + 10, x + 2y = 0. The value of x in the solution is**

ANSWER _____

Understand It with Pulse | Flag a mistake

12 **Solve the system y = 3x, x + 3y = 20. The value of y in the solution is**

ANSWER _____

Understand It with Pulse | Flag a mistake

13 **Solve the system y = -2x + 11, 4x + 3y = 23. The value of y in the solution is**

ANSWER _____

Understand It with Pulse | Flag a mistake

14 **Solve the system y = x + 7, x + 3y = 5. The value of y in the solution is**

ANSWER _____

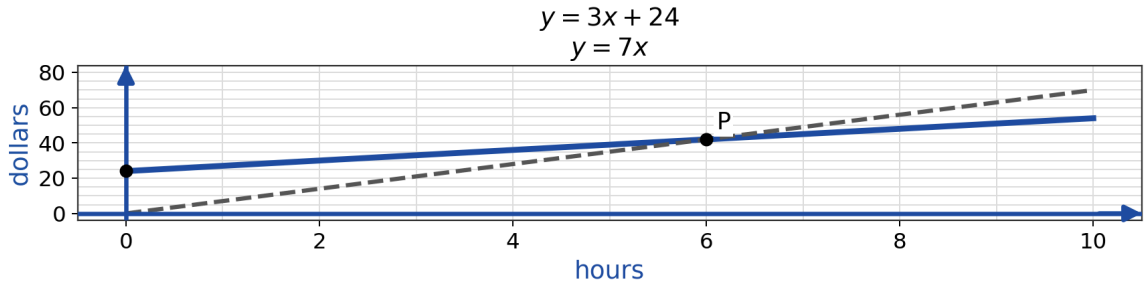
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15 **A theatre sells adult tickets for 12 dollars and child tickets for 7 dollars. On one night, 40 tickets were sold for a total of 370 dollars. The number of adult tickets sold was**

ANSWER

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16 **The graph shows the cost, in dollars, of two plans against hours. Plan A costs 24 dollars plus 3 dollars per hour. Plan B costs 7 dollars per hour. The number of hours for which the two plans cost the same amount is**



ANSWER

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17 **A theatre sells adult tickets for 10 dollars and child tickets for 6 dollars. On one night, 35 tickets were sold for a total of 290 dollars. The number of adult tickets sold was**

ANSWER

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18 **A jar holds nickels and dimes. There are 30 coins worth 210 cents in total. The number of dimes in the jar is**

ANSWER _____

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19 **A jar holds nickels and dimes. There are 40 coins worth 325 cents in total. The number of dimes in the jar is**

ANSWER _____

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20 **A shop sells pens for 4 dollars and pencils for 2 dollars. Sara buys 30 items for 82 dollars in total. The number of pens Sara buys is**

ANSWER _____

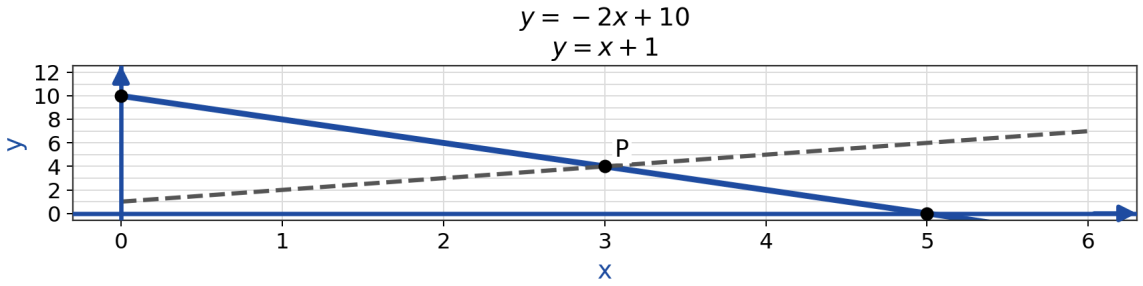
Understand It with Pulse | Flag a mistake

21 **A shop sells pens for 5 dollars and pencils for 3 dollars. Sara buys 28 items for 116 dollars in total. The number of pens Sara buys is**

ANSWER _____

Understand It with Pulse | Flag a mistake

22 **The graph shows the lines y = -2x + 10 and y = x + 1 The solution of the system formed by the two lines is**



A (3, -4)

B (-3, 4)

C (4, 3)

D (3, 4)

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23 **The sum of two numbers is 48 and their difference is 12. The larger number is**

ANSWER _____

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24 **The sum of two numbers is 73 and their difference is 21. The larger number is**

ANSWER _____

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25 **Plan A costs 24 dollars plus 3 dollars per hour. Plan B costs 7 dollars per hour. For how many hours do the two plans cost the same amount?**

ANSWER _____

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ANSWER KEY

1. A
2. B
3. C
4. A
5. A
6. B
7. C
8. D
9. 3
10. B
11. 4
12. 6
13. 1
14. 3
15. 18
16. 6
17. 20
18. 12
19. 25
20. 11
21. 16
22. D
23. 30
24. 47
25. 6

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