ALBERTA MATH 10C · UNIT 6 · 10 QUESTIONS

# Systems of Linear Equations — 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 solution to the system 2x + 3y = 12 and x - y = 1 is**

- A (2, 3)
- B (3, 2)
- C (3, -2)
- D (1, 2)

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**2** **Which system of equations has no solution?**

- A y = 5x - 2 y = 5x + 3
- B x - y = 4 2x - 2y = 8
- C y = x + 2 y = -x + 6
- D x + y = 1 2x - y = 5

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3 **When the system 4x + y = 21 and x - y = 4 is solved, the value of x is _____**

ANSWER

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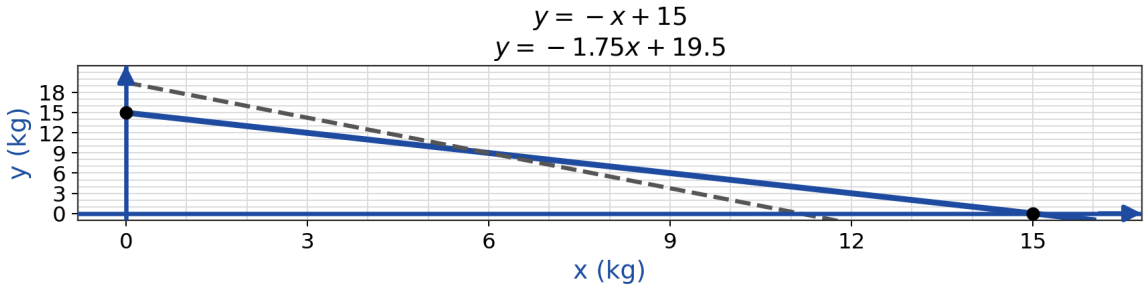
4 **The two lines shown are the graphs of x + y = 15 and 14x + 8y = 156, where x is the mass, in kilograms, of beans that cost 14 dollars per kilogram and y is the mass, in kilograms, of beans that cost 8 dollars per kilogram. The mass of the beans that cost 8 dollars per kilogram, in kilograms, is**




A 6

B 12

C 10

D 9

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**5** The solution to the system 0.5x + 1.5y = 9 and x - y = 2 is

- A (4, 6)
- B (8, 2)
- C (6, 4)
- D (6, 2)

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**6** The perimeter of a rectangle is 52 cm. The length is 4 cm less than twice the width. The width of the rectangle, in centimetres, is ____

ANSWER _____

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7 **If 4x - y = 10 and 2x + y = 8, then the value of 3x is**

A 9

B 3

C 6

D 12

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8 **The sum of the digits of a two-digit number is 8. Reversing the digits gives a number that is 18 less than the original number. The original number is**

A 35

B 53

C 44

D 62

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9 **Three notebooks and two pens cost 16 dollars in total. One notebook and four pens cost 12 dollars in total. The cost of one notebook, in dollars, is ____**

ANSWER _____

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10 **The system 3x + ky = 12 and x + 2y = 4 has infinitely many solutions. The value of k is**

A 2

B 3

C 12

D 6

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# ANSWER KEY

1. B
2. A
3. 5
4. D
5. C
6. 10
7. A
8. B
9. 4
10. D

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