

Brett Robbins Academic Consulting

Mathematics 10C Practice Test

Unit 6: Systems of Linear Equations

10 Questions

Original practice questions written to the Alberta curriculum, in the style of past diploma examinations. Work through each question, then check your answers with the key at the end.

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, contact Brett for clarification.

Question 1

The solution to the system $y = 2x + 1$ and $y = -x + 7$ is

- A) (2, 5)
- B) (5, 2)
- C) (-2, 5)
- D) (2, -5)

Question 2

The solution to the system $x + y = 11$ and $y = 3x - 5$ is

- A) (7, 4)
- B) (4, 7)
- C) (3, 8)
- D) (4, -7)

Question 3

The system $y = 3x + 2$ and $y = 3x - 4$ has

- A) one solution
- B) no solution
- C) infinitely many solutions
- D) two solutions

Question 4

The solution to the system $2x + y = 10$ and $x - y = 2$ is

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

Question 5

Which ordered pair is a solution to both $y = x + 3$ and $2x + y = 9$?

A) (1, 4)

B) (3, 6)

C) (4, 7)

D) (2, 5)

Question 6

When the system $y = 2x - 3$ and $3x + y = 12$ is solved, the value of x is ____

Question 7

The solution to the system $3x + 2y = 16$ and $x + y = 6$ is

A) (4, 2)

B) (2, 4)

C) (5, 1)

D) (3, 3)

Question 8

A theatre sells adult tickets for 12 dollars and child tickets for 8 dollars.

One evening, 25 tickets were sold for a total of 248 dollars.

The number of adult tickets sold is

A) 13

B) 10

C) 12

D) 15

Question 9

Which system of equations has infinitely many solutions?

A) $x + y = 5$

$$2x + 2y = 10$$

B) $y = 2x + 3$

$$y = 2x - 1$$

C) $y = x + 1$

$$y = -x + 1$$

D) $3x + y = 7$

$$3x + y = 9$$

Question 10

When the system $5x - 2y = 4$ and $3x + 2y = 12$ is solved by elimination, the value of y is ____

Answer Key

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

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