

Linear Systems

PRACTICE TEST

Use graphing to find the x-coordinate of the solution to each system.

1) $y = 2x + 4$

$$y = -\frac{2}{3}x - 4$$

- A) 1 B) -4
C) 2 D) -3

2) $y = \frac{1}{4}x + 3$

$$y = \frac{5}{4}x - 1$$

- A) 1
B) -4
C) 4
D) Infinite number of solutions

Use substitution to find the x-coordinate of the solution to each system.

3) $y = 4x - 7$

$$y = 3x - 4$$

- A) 3
B) -3
C) Infinite number of solutions
D) 4

4) $y = -2x + 7$

$$-2x + 2y = -22$$

- A) 4 B) 6
C) No solution D) 7

Use elimination to find the x-coordinate of the solution to each system.

5) $3x + 10y = 8$

$$3x - y = -14$$

- A) 4
B) Infinite number of solutions
C) -4
D) 7

6) $8x + 9y = 20$

$$3x + y = -2$$

- A) 4
B) Infinite number of solutions
C) -2
D) 2

7) $-10x - 7y = -5$
 $-20x - 10y = -30$

- A) -4 B) -6
C) -5 D) 4

8) $-3x + 4y = 29$
 $5x + 10y = -15$

- A) 3 B) -7
C) -8 D) -1

9) Eugene and Micaela are selling wrapping paper for a school fundraiser. Customers can buy rolls of plain wrapping paper and rolls of holiday wrapping paper. Eugene sold 8 rolls of plain wrapping paper and 8 rolls of holiday wrapping paper for a total of \$264. Micaela sold 3 rolls of plain wrapping paper and 1 roll of holiday wrapping paper for a total of \$65. Find the cost each of one roll of plain wrapping paper and one roll of holiday wrapping paper.

- A) roll of plain wrapping paper: \$17, roll of holiday wrapping paper: \$16
B) roll of plain wrapping paper: \$21, roll of holiday wrapping paper: \$20
C) roll of plain wrapping paper: \$16, roll of holiday wrapping paper: \$17
D) roll of plain wrapping paper: \$19, roll of holiday wrapping paper: \$15

10) The school that Natalie goes to is selling tickets to the annual dance competition. On the first day of ticket sales the school sold 7 senior citizen tickets and 12 child tickets for a total of \$223. The school took in \$204 on the second day by selling 14 senior citizen tickets and 2 child tickets. Find the price of a senior citizen ticket and the price of a child ticket.

- A) senior citizen ticket: \$9, child ticket: \$7 B) senior citizen ticket: \$13, child ticket: \$11
C) senior citizen ticket: \$20, child ticket: \$18 D) senior citizen ticket: \$19, child ticket: \$5