

## Chapter 5 College Algebra Practice Test

Score: 

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1. Solve using any method.

$$y = 4x + 1$$
$$3x + 2y = 13$$

Express your answer as an ordered pair.

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2. Solve using elimination

$$2x - y + 2z = -8$$
$$x + 2y - 3z = 9$$
$$3x - y - 4z = 3$$

Express your answer in the form (x, y, z)

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3. Roses sell for \$3 each and carnations sell for \$1.50 each. If a mixed bouquet of 20 flowers consisting of roses and carnations costs \$39, how many of each type of flower is in the bouquet?

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4. Given this system,

$$\begin{aligned}y &\geq 0 \\ 3x + 2y &\geq 4 \\ x - y &\leq 3\end{aligned}$$

State which of the following coordinates are solutions to the system.

(8,0), (0,8), (-8,0), (0,-8), (2,3), (2,-3), (-2,-3)

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5. What is true of a system of linear equations that has NO solution?

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6. Solve this system of non-linear equations.

$$\begin{aligned}x^2 + y^2 &= 25 \\ (x - 8)^2 + y^2 &= 41\end{aligned}$$

Express your answers as ordered pairs in the coordinate plane.

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7. Mr. Wenneborg wears a very stylish sweater that was purchased at the following store.

- A Sears
- B Savers
- C Ralph Lauren Outlet
- D Hollister
- E None of these