

Intermediate Algebra Test 2 Multiple Choice

Multiple Choice

Identify the letter of the choice that best completes the statement or answers the question.

____ ~~1~~ Solve the system by any method, if possible.

$$\begin{cases} 3x - 4y = 15 \\ x + 2y = 10 \end{cases}$$

$$\begin{array}{r} -2x + 4y = +20 \\ 3x - 4y = 15 \\ \hline 5x = 35 \\ \hline x = 7 \end{array}$$

If the system is inconsistent or if the equations are dependent, so indicate.

- a. no solution, inconsistent system
 b. $\left(7, \frac{3}{2}\right)$
 c. $\left(\frac{3}{2}, 7\right)$
 d. $\left(10, \frac{3}{2}\right)$
 e. infinitely many solutions, dependent equations

____ 2. Solve the system by any method, if possible.

$$\begin{cases} x = \frac{3}{2}y + 2 \\ 2x - 3y = 9 \end{cases}$$

If the system is inconsistent or if the equations are dependent, so indicate.

- a. $\left(9, \frac{2}{3}\right)$
 b. infinitely many solutions, dependent equations
 c. $\left(10, \frac{3}{2}\right)$
 d. $\left(\frac{1}{2}, 10\right)$
 e. no solution, inconsistent system

$$\begin{array}{r} -2x = -3y - 4 \\ 2x - 3y = 9 \end{array}$$

$$2x - 3\left(\frac{3}{2}\right) = 9$$

$$2x - \frac{9}{2} = 9$$

$$\begin{array}{r} 2x - 3y = 9 \\ 2(0) - 3y = 9 \\ -3y = 9 \\ \hline y = -3 \end{array}$$

$$\begin{array}{r} 2(0) - 3y = 9 \\ 0 - 3y = 9 \end{array}$$