1. Solve the following linear system by substitution. $\left\{ \begin{array}{c} \frac{x}{9} - \frac{y}{12} = -\frac{1}{12} \\ -\frac{x}{3} + \frac{y}{3} = -\frac{4}{9} \end{array} \right\}$

A. There are infinitely many solutions.

B. $(-7, -\frac{25}{3})$.

C. $(-9, -\frac{31}{3})$.

D. There is no solution.

E. $(-10, -\frac{34}{3})$.

F. $(-4, -\frac{16}{3})$.

G. $(-6, -\frac{22}{3})$.

H. $(-3, -\frac{13}{3})$.

2. Billy Bob has two test scores in a psychology class. The mean of these scores is 59 and their range is 25. Use this information to write a system of equations which models this situation.

A. The system is $\left\{ \begin{array}{c} \frac{x-y}{2} = 25 \\ x + y = 59 \end{array} \right\}$.

B. The system is $\left\{ \begin{array}{c} \frac{x+y}{2} = 59 \\ x - y = 25 \end{array} \right\}$.

C. The system is $\left\{ \begin{array}{c} \frac{x-y}{2} = 59 \\ x - y = 25 \end{array} \right\}$.

D. The system is $\left\{ \begin{array}{c} \frac{x-y}{2} = 59 \\ x + y = 25 \end{array} \right\}$.

E. The system is $\left\{ \begin{array}{c} \frac{x-y}{2} = 25 \\ x - y = 59 \end{array} \right\}$.

F. The system is $\left\{ \begin{array}{c} x + \frac{y}{2} = 59 \\ \frac{x}{2} - y = 25 \end{array} \right\}$.

G. The system is $\left\{ \begin{array}{c} x + \frac{y}{2} = 25 \\ \frac{x}{2} + y = 59 \end{array} \right\}$.

H. The system is $\left\{ \begin{array}{c} \frac{x+y}{2} = 25 \\ x - y = 59 \end{array} \right\}$.

3. Solve the following linear system by substitution. $\left\{ \begin{array}{l} 2x+3y=0 \\ x-3y=0 \end{array} \right\}$

A. $(-1,-1)$.

B. $(4,4)$.

C. $(0,0)$.

D. There are infinitely many solutions.

E. $(2,2)$.

F. There is no solution.

G. $(-4,-4)$.

H. $(-3,-3)$.

4. Solve the following linear system by substitution. $\left\{ \begin{array}{l} 2x+2y=0 \\ -2x-y=2 \end{array} \right\}$

A. There are infinitely many solutions.

B. $(-2,2)$.

C. $(-3,1)$.

D. $(-6,-2)$.

E. $(-4,0)$.

F. $(1,5)$.

G. There is no solution.

H. $(-5,-1)$.

5. Solve the following linear system by substitution. $\left\{ \begin{array}{l} x+2y=0 \\ -3x+y=-1 \end{array} \right\}$

A. There is no solution.

B. There are infinitely many solutions.

C. $(\frac{23}{7}, \frac{20}{7})$.

D. $(\frac{2}{7}, -\frac{1}{7})$.

E. $(-\frac{26}{7}, -\frac{29}{7})$.

F. $(\frac{16}{7}, \frac{13}{7})$.

G. $(-\frac{5}{7}, -\frac{8}{7})$.

H. $(\frac{9}{7}, \frac{6}{7})$.

6. Solve the following linear system by substitution. $\left\{ \begin{array}{l} \frac{x}{17} - \frac{y}{12} = \frac{1}{17} \\ -\frac{x}{4} + \frac{y}{3} = 0 \end{array} \right\}$

A. $(-20, -16)$.

B. $(-13, -9)$.

C. There are infinitely many solutions.

D. $(-15, -11)$.

E. $(-17, -13)$.

F. $(-16, -12)$.

G. $(-12, -8)$.

H. There is no solution.

7. Solve the following linear system by substitution. $\left\{ \begin{array}{l} \frac{x}{2} + \frac{y}{3} = \frac{1}{3} \\ \frac{x}{9} + \frac{y}{12} = -\frac{1}{9} \end{array} \right\}$

A. $(14, -20)$.

B. $(13, -21)$.

C. $(18, -16)$.

D. There are infinitely many solutions.

E. $(10, -24)$.

F. $(17, -17)$.

G. There is no solution.

H. $(11, -23)$.

8. Solve the following linear system by substitution. $\left\{ \begin{array}{l} -\frac{x}{8} + \frac{y}{8} = -\frac{1}{8} \\ -\frac{x}{4} - \frac{y}{2} = \frac{1}{4} \end{array} \right\}$

A. $(\frac{4}{3}, \frac{1}{3})$.

B. There are infinitely many solutions.

C. $(-\frac{8}{3}, -\frac{11}{3})$.

D. $(\frac{13}{3}, \frac{10}{3})$.

E. $(\frac{1}{3}, -\frac{2}{3})$.

F. $(\frac{10}{3}, \frac{7}{3})$.

G. $(-\frac{11}{3}, -\frac{14}{3})$.

H. There is no solution.