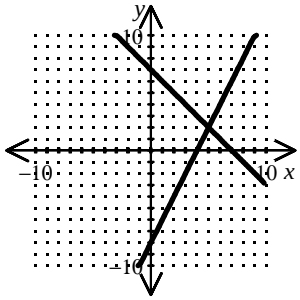
Graph and classify the system of equations as *independent*, *inconsistent*, or *dependent*. If the system is independent, find the solution from the graph.

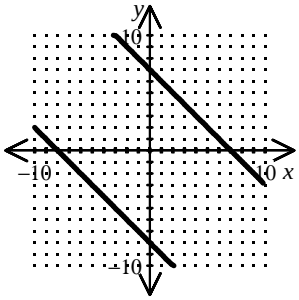
1. $\begin{cases} x + y = 7 \\ y = -x - 8 \end{cases}$

[A]



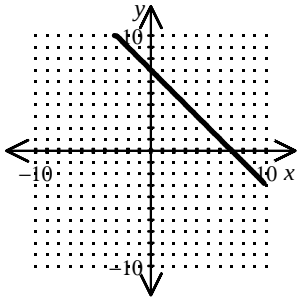
Independent; $(5,\ 2)$

[B]



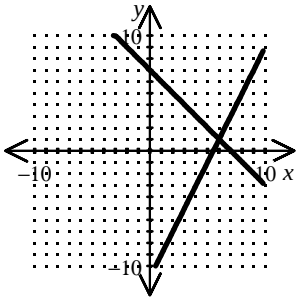
Inconsistent; no solution

[C]



Dependent; infinitely many solutions

[D]

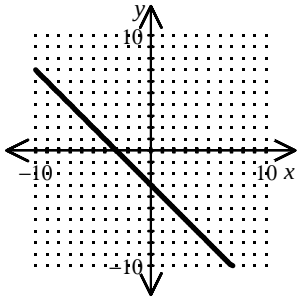


Independent; $(6,\ 1)$

Graph and classify the system of equations as *independent*, *inconsistent*, or *dependent*. If the system is independent, find the solution from the graph.

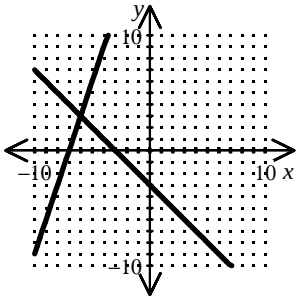
2. $\begin{cases} x + y = -3 \\ y = 3x + 21 \end{cases}$

[A]



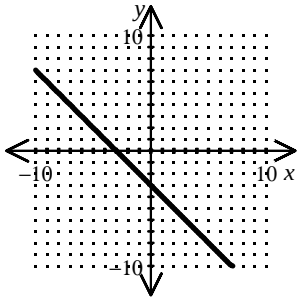
Inconsistent; no solution

[B]



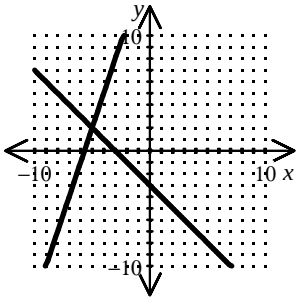
Independent; $(-6,\ 3)$

[C]



Dependent; infinitely many solutions

[D]

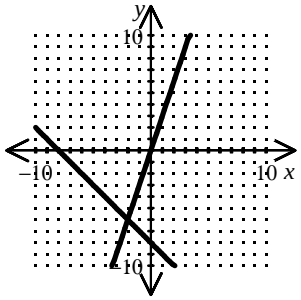


Independent; $(-5,\ 2)$

Graph and classify the system of equations as *independent*, *inconsistent*, or *dependent*. If the system is independent, find the solution from the graph.

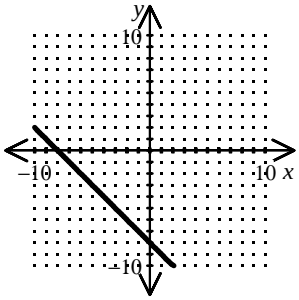
3. $\begin{cases} x + y = -8 \\ y = -x - 8 \end{cases}$

[A]



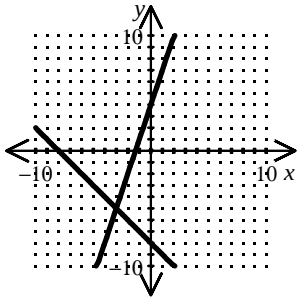
Independent; $(-2,\ -6)$

[B]



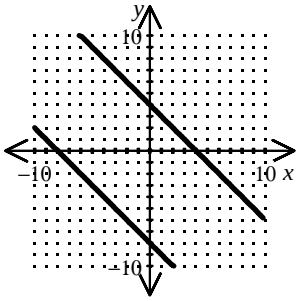
Dependent; infinitely many solutions

[C]



Independent; $(-3,\ -5)$

[D]

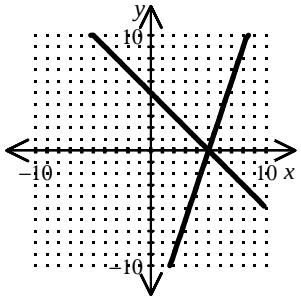


Inconsistent; no solution

Graph and classify the system of equations as *independent*, *inconsistent*, or *dependent*. If the system is independent, find the solution from the graph.

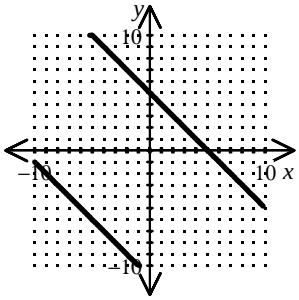
4. $\begin{cases} x + y = 5 \\ y = -x - 11 \end{cases}$

[A]



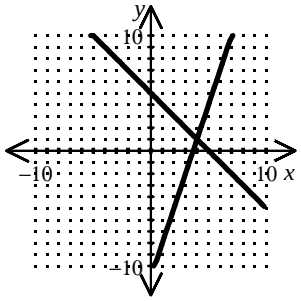
Independent; $(5,\ 0)$

[B]



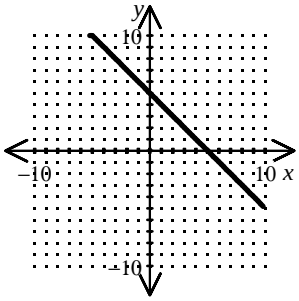
Inconsistent; no solution

[C]



Independent; $(4,\ 1)$

[D]

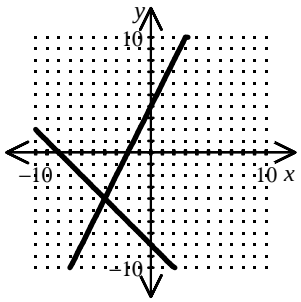


Dependent; infinitely many solutions

Graph and classify the system of equations as *independent*, *inconsistent*, or *dependent*. If the system is independent, find the solution from the graph.

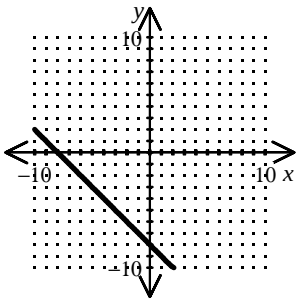
5. $\begin{cases} x + y = -8 \\ y = 2x + 7 \end{cases}$

[A]



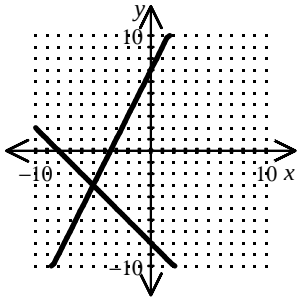
Independent; $(-4,\ -4)$

[B]



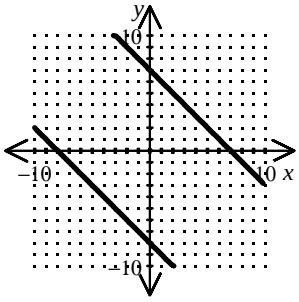
Dependent; infinitely many solutions

[C]



Independent; $(-5,\ -3)$

[D]

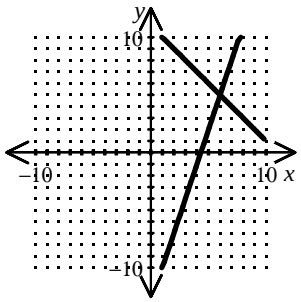


Inconsistent; no solution

Graph and classify the system of equations as *independent*, *inconsistent*, or *dependent*. If the system is independent, find the solution from the graph.

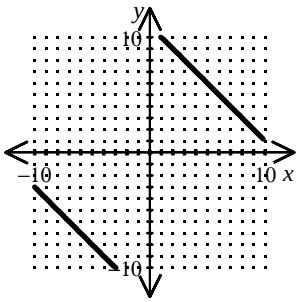
6. $\begin{cases} x + y = 11 \\ y = -x + 11 \end{cases}$

[A]



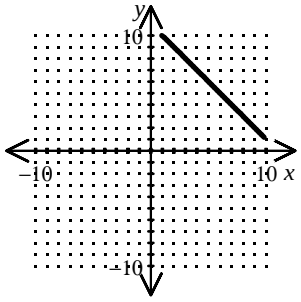
Independent; $(6,\ 5)$

[B]



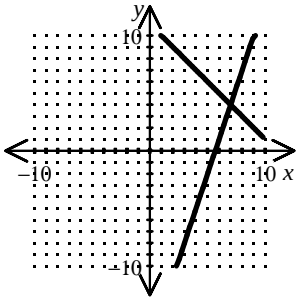
Inconsistent; no solution

[C]



Dependent; infinitely many solutions

[D]

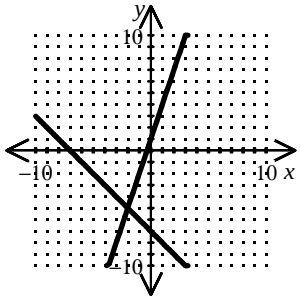


Independent; $(7,\ 4)$

Graph and classify the system of equations as *independent*, *inconsistent*, or *dependent*. If the system is independent, find the solution from the graph.

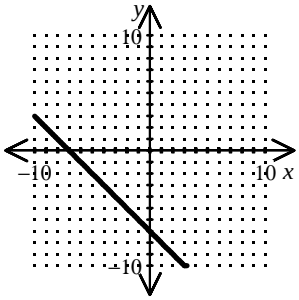
7. $\begin{cases} x + y = -7 \\ y = 3x + 5 \end{cases}$

[A]



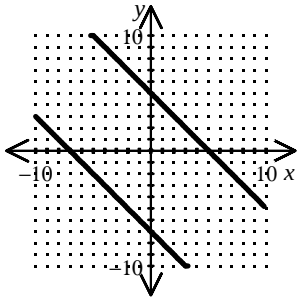
Independent; $(-2,\ -5)$

[B]



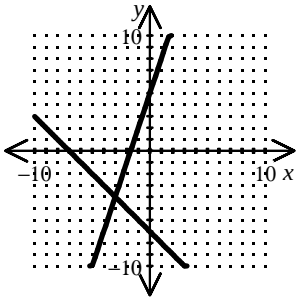
Dependent; infinitely many solutions

[C]



Inconsistent; no solution

[D]

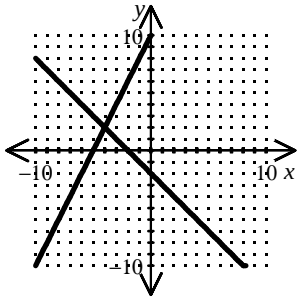


Independent; $(-3,\ -4)$

Graph and classify the system of equations as *independent*, *inconsistent*, or *dependent*. If the system is independent, find the solution from the graph.

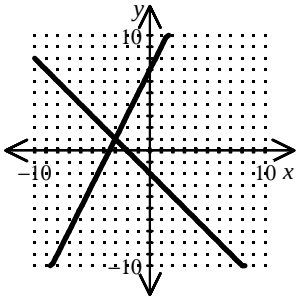
8. $\begin{cases} x + y = -2 \\ y = -x + 10 \end{cases}$

[A]



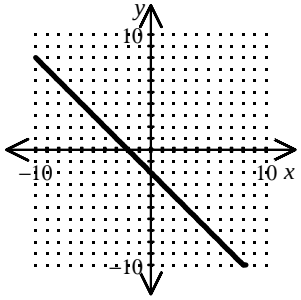
Independent; $(-4,\ 2)$

[B]



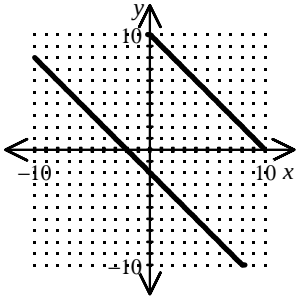
Independent; $(-3,\ 1)$

[C]



Dependent; infinitely many solutions

[D]

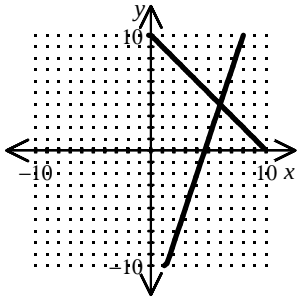


Inconsistent; no solution

Graph and classify the system of equations as *independent*, *inconsistent*, or *dependent*. If the system is independent, find the solution from the graph.

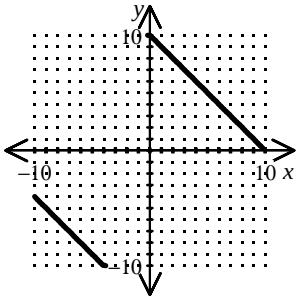
9. $\begin{cases} x + y = 10 \\ y = -x + 10 \end{cases}$

[A]



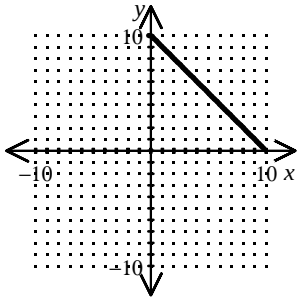
Independent; $(6,\ 4)$

[B]



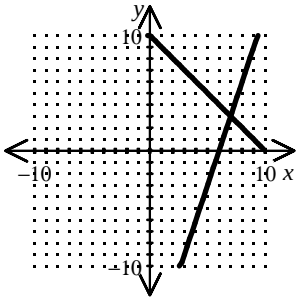
Inconsistent; no solution

[C]



Dependent; infinitely many solutions

[D]

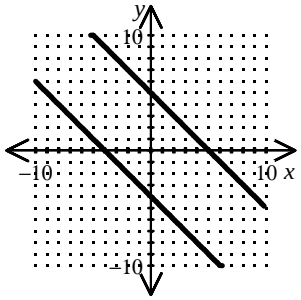


Independent; $(7,\ 3)$

Graph and classify the system of equations as *independent*, *inconsistent*, or *dependent*. If the system is independent, find the solution from the graph.

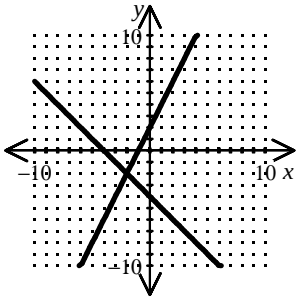
10. $\begin{cases} x + y = -4 \\ y = 2x + 5 \end{cases}$

[A]



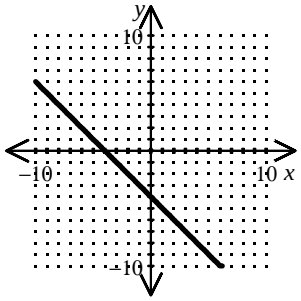
Inconsistent; no solution

[B]



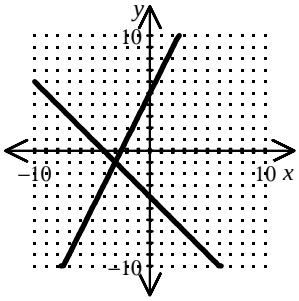
Independent; $(-2,\ -2)$

[C]



Dependent; infinitely many solutions

[D]



Independent; $(-3,\ -1)$

Use a graph to solve the system of equations.

11. $\begin{cases} x + y = -6 \\ y = 2x + 6 \end{cases}$ [A] $(12,\ -18)$ [B] $(-4,\ -2)$ [C] $(-2,\ -4)$ [D] $(-2,\ 2)$

12. $\begin{cases} x + y = -6 \\ y = 2x + 9 \end{cases}$ [A] $(15,\ -21)$ [B] $(-2,\ -4)$ [C] $(-3,\ 3)$ [D] $(-5,\ -1)$

13. $\begin{cases} x + y = 4 \\ y = 3x - 20 \end{cases}$ [A] $(6,\ -2)$ [B] $(5,\ -5)$ [C] $(-12,\ 16)$ [D] $(1,\ 3)$

Use a graph to solve the system of equations.

14. $\begin{cases} x+y=-3 \\ y=2x+15 \end{cases}$ [A] $(-1,\ -2)$ [B] $(-6,\ 3)$ [C] $(-5,\ 5)$ [D] $(18,\ -21)$

15. $\begin{cases} x+y=-8 \\ y=3x+16 \end{cases}$ [A] $(12,\ -20)$ [B] $(-4,\ 4)$ [C] $(-2,\ -6)$ [D] $(-6,\ -2)$

16. $\begin{cases} x+y=3 \\ y=2x+6 \end{cases}$ [A] $(-2,\ 2)$ [B] $(-1,\ 4)$ [C] $(1,\ 2)$ [D] $(3,\ 0)$

17. $\begin{cases} x+y=8 \\ y=3x-12 \end{cases}$ [A] $(2,\ 6)$ [B] $(-10,\ 18)$ [C] $(3,\ -3)$ [D] $(5,\ 3)$

18. $\begin{cases} x+y=8 \\ y=3x-4 \end{cases}$ [A] $(3,\ 5)$ [B] $(1,\ -1)$ [C] $(-6,\ 14)$ [D] $(2,\ 6)$

19. $\begin{cases} x+y=-3 \\ y=2x-9 \end{cases}$ [A] $(-1,\ -2)$ [B] $(3,\ -3)$ [C] $(2,\ -5)$ [D] $(-6,\ 3)$

20. $\begin{cases} x+y=3 \\ y=2x-12 \end{cases}$ [A] $(4,\ -4)$ [B] $(5,\ -2)$ [C] $(1,\ 2)$ [D] $(-15,\ 18)$

21. $\begin{cases} x+y=-8 \\ y=2x+1 \end{cases}$

22. $\begin{cases} x+y=-4 \\ y=3x \end{cases}$

23. $\begin{cases} x+y=7 \\ y=2x-8 \end{cases}$

Use a graph to solve the system of equations.

24. $\begin{cases} x + y = 7 \\ y = 3x - 17 \end{cases}$

25. $\begin{cases} x + y = -3 \\ y = 3x - 11 \end{cases}$

26. $\begin{cases} x + y = 3 \\ y = 2x \end{cases}$

27. $\begin{cases} x + y = -6 \\ y = 3x + 14 \end{cases}$

28. $\begin{cases} x + y = 2 \\ y = 2x - 16 \end{cases}$

29. $\begin{cases} x + y = 1 \\ y = 2x + 13 \end{cases}$

30. $\begin{cases} x + y = 1 \\ y = 3x + 9 \end{cases}$

Solve the system of equations by substitution.

31. $\begin{cases} x - 2y = -3 \\ -x + y = 3 \end{cases}$ [A] $(-3,\ 0)$ [B] $(-2,\ -3)$ [C] $(-2,\ 5)$ [D] $\left(0,\ 1\frac{1}{2}\right)$

32. $\begin{cases} x + 4y = -19 \\ 3x + y = -2 \end{cases}$ [A] $(1,\ -5)$ [B] $(-1,\ 1)$ [C] $(2,\ 4)$ [D] $\left(-5,\ -3\frac{1}{2}\right)$

Solve the system of equations by substitution.

33. $\begin{cases} 3x+2y=21 \\ x+y=8 \end{cases}$ [A] $(6,\ 14)$ [B] $(5,\ 3)$ [C] $(3,\ 6)$ [D] $\left(2\frac{3}{5},\ 5\right)$

34. $\begin{cases} x+2y=-4 \\ x+y=-1 \end{cases}$ [A] $(3,\ 2)$ [B] $\left(\frac{1}{3},\ 2\right)$ [C] $(2,\ -3)$ [D] $\left(-3,\ -\frac{1}{2}\right)$

35. $\begin{cases} x-4y=-4 \\ -3x+y=-10 \end{cases}$ [A] $(4,\ 2)$ [B] $\left(3\frac{1}{3},\ 4\right)$ [C] $\left(2,\ 1\frac{1}{2}\right)$ [D] $(5,\ -25)$

36. $\begin{cases} x+4y=-12 \\ 3x+y=-14 \end{cases}$

[A] $\left(-2,\ -2\frac{1}{2}\right)$ [B] $(-3,\ -23)$ [C] $\left(-3\frac{1}{3},\ -4\right)$ [D] $(-4,\ -2)$

37. $\begin{cases} x+2y=3 \\ x+y=-1 \end{cases}$ [A] $(-5,\ 4)$ [B] $(-2,\ -5)$ [C] $\left(4,\ -\frac{1}{2}\right)$ [D] $(-4,\ -5)$

38. $\begin{cases} 3x-4y=16 \\ -3x+y=-4 \end{cases}$ [A] $(1,\ -7)$ [B] $(0,\ -4)$ [C] $(-4,\ -7)$ [D] $\left(-\frac{4}{5},\ 0\right)$

39. $\begin{cases} 3x+4y=-2 \\ 3x+y=-5 \end{cases}$ [A] $(-2,\ 1)$ [B] $\left(1,\ -1\frac{1}{4}\right)$ [C] $\left(-\frac{3}{5},\ -2\right)$ [D] $(-1,\ -8)$

40. $\begin{cases} 3x-2y=-1 \\ -x+y=2 \end{cases}$ [A] $(5,\ 8)$ [B] $(4,\ -2)$ [C] $\left(2\frac{1}{5},\ 3\right)$ [D] $(3,\ 5)$

Solve the system of equations by substitution.

41. $\begin{cases} 2y = 10 \\ x + 3y + 3z = 22 \\ y + z = 8 \end{cases}$

[A] $(-2,\ 5,\ 3)$ [B] $(3,\ -2,\ 5)$ [C] $(5,\ 3,\ -2)$ [D] $(-1,\ 7,\ -3)$

42. $\begin{cases} 5y = 5 \\ x + 4y + 2z = 12 \\ y - 4z = -7 \end{cases}$

[A] $(2,\ 4,\ 1)$ [B] $(1,\ 2,\ 4)$ [C] $(5,\ 3,\ -2)$ [D] $(4,\ 1,\ 2)$

43. $\begin{cases} 4y = 12 \\ x + 2y + 3z = 13 \\ y + 4z = 19 \end{cases}$

[A] $(-5,\ 3,\ 4)$ [B] $(4,\ -5,\ 3)$ [C] $(3,\ 4,\ -5)$ [D] $(-4,\ 5,\ -4)$

44. $\begin{cases} 3y = 6 \\ x + 4y + 2z = 19 \\ y - z = -3 \end{cases}$

[A] $(2,\ 4,\ -5)$ [B] $(5,\ 1,\ 2)$ [C] $(1,\ 2,\ 5)$ [D] $(2,\ 5,\ 1)$

45. $\begin{cases} 5y = 20 \\ x + y + 2z = 3 \\ y - 4z = 0 \end{cases}$

[A] $(4,\ 1,\ -3)$ [B] $(-3,\ 4,\ 1)$ [C] $(-2,\ 6,\ -1)$ [D] $(1,\ -3,\ 4)$

46. $\begin{cases} -4x + y = 16 \\ -8x + 6y = 48 \end{cases}$

47. $\begin{cases} 3x + y = 19 \\ -2x + 7y = -51 \end{cases}$

Solve the system of equations by substitution.

48. $\begin{cases} 6x + y = -44 \\ -7x - 2y = 53 \end{cases}$

49. $\begin{cases} 7x + y = -40 \\ -3x + 2y = 22 \end{cases}$

50. $\begin{cases} -8x + y = 31 \\ 5x + 6y = -79 \end{cases}$

51. $\begin{cases} -6x + y = -22 \\ -2x + 4y = -22 \end{cases}$

52. $\begin{cases} 7x + y = -49 \\ 5x - 3y = -9 \end{cases}$

53. $\begin{cases} 3x + y = -27 \\ 7x + 5y = -71 \end{cases}$

54. $\begin{cases} -2x + y = -22 \\ 6x - 7y = 82 \end{cases}$

55. $\begin{cases} 2x + y = 22 \\ -6x + 3y = -30 \end{cases}$

56. $\begin{cases} 4y = 4 \\ x + 2y + z = 9 \\ y - 3z = -14 \end{cases}$

Solve the system of equations by substitution.

57. $\begin{cases} 5y = 20 \\ x + 4y + 2z = 17 \\ y + 4z = 12 \end{cases}$

58. $\begin{cases} 2y = 10 \\ x + 4y + 4z = 31 \\ y - 3z = -4 \end{cases}$

59. $\begin{cases} 3y = 6 \\ x + y + z = 7 \\ y - 2z = 0 \end{cases}$

60. $\begin{cases} 2y = 6 \\ x + y + z = 12 \\ y + 2z = 11 \end{cases}$

Use elimination to solve the system of equations.

61. $\begin{cases} 4x + 3y = -18 \\ 3x - 3y = -3 \end{cases}$

[A] $(-30,\ -2)$ [B] $\left(-2,\ -\frac{10}{3}\right)$ [C] $(0,\ -6)$ [D] $(-3,\ -2)$

62. $\begin{cases} 2x + 4y = -14 \\ x - 4y = 17 \end{cases}$

[A] $\left(-4,\ -\frac{3}{2}\right)$ [B] $(-12,\ -4)$ [C] $(1,\ -4)$ [D] $\left(0,\ -\frac{7}{2}\right)$

63. $\begin{cases} 2x - 5y = -17 \\ 3x + 5y = 12 \end{cases}$ [A] $\left(0,\ \frac{17}{5}\right)$ [B] $(-1,\ 3)$ [C] $\left(3,\ \frac{23}{5}\right)$ [D] $(-19,\ 3)$

Use elimination to solve the system of equations.

64. $\begin{cases} 4x+2y=-18 \\ x-2y=-7 \end{cases}$ [A] $(1,\ -11)$ [B] $(-38,\ 1)$ [C] $(0,\ -9)$ [D] $(-5,\ 1)$

65. $\begin{cases} 2x+y=-13 \\ 3x-y=-7 \end{cases}$ [A] $(0,\ -13)$ [B] $(-21,\ -5)$ [C] $(-5,\ -3)$ [D] $(-4,\ -5)$

66. $\begin{cases} 4x+4y=-4 \\ x-4y=14 \end{cases}$ [A] $(0,\ -1)$ [B] $(2,\ -3)$ [C] $(-3,\ 2)$ [D] $(4,\ -3)$

67. $\begin{cases} 2x+5y=6 \\ 3x-5y=-16 \end{cases}$ [A] $(2,\ 2)$ [B] $\left(0,\ \frac{6}{5}\right)$ [C] $\left(2,\ \frac{2}{5}\right)$ [D] $(-2,\ 2)$

68. $\begin{cases} 4x+3y=8 \\ x-3y=17 \end{cases}$ [A] $(5,\ -4)$ [B] $\left(0,\ \frac{8}{3}\right)$ [C] $(-4,\ 8)$ [D] $(28,\ -4)$

69. $\begin{cases} 2x-2y=4 \\ x+2y=5 \end{cases}$ [A] $(0,\ -2)$ [B] $(10,\ 1)$ [C] $(3,\ 1)$ [D] $(1,\ -1)$

70. $\begin{cases} 4x+y=13 \\ 3x-y=15 \end{cases}$ [A] $(-3,\ 25)$ [B] $(0,\ 13)$ [C] $(29,\ -3)$ [D] $(4,\ -3)$

71. $\begin{cases} 2x+y=-1 \\ 5x+2y=4 \end{cases}$

[A] $(6,\ -13)$ [B] $(-2,\ 1)$ [C] infinitely many [D] no solution

72. $\begin{cases} 4x-3y=3 \\ 5x+4y=-2 \end{cases}$

[A] $\left(\frac{6}{31},\ -\frac{23}{31}\right)$ [B] $(-3,\ 4)$ [C] infinitely many [D] no solution

Use elimination to solve the system of equations.

73. $\begin{cases} 4x+5y=1 \\ x-2y=-2 \end{cases}$

[A] $(-4,\ 5)$ [B] $\left(-\frac{8}{13},\ \frac{9}{13}\right)$ [C] infinitely many [D] no solution

74. $\begin{cases} 2x-5y=5 \\ -8x+20y=5 \end{cases}$

[A] $(-5,\ 2)$ [B] $\left(\frac{40}{13},\ \frac{3}{13}\right)$ [C] infinitely many [D] no solution

75. $\begin{cases} 4x-y=-5 \\ 3x+4y=-4 \end{cases}$

[A] $(-1,\ 4)$ [B] $\left(-\frac{24}{19},\ -\frac{1}{19}\right)$ [C] infinitely many [D] no solution

76. $\begin{cases} -10x+4y=-4 \\ 5x-2y=2 \end{cases}$

[A] $(0,\ -1)$ [B] $(-6,\ 3)$ [C] infinitely many [D] no solution

77. $\begin{cases} 2x-y=7 \\ 5x+4y=2 \end{cases}$

[A] $\left(\frac{30}{13},\ -\frac{31}{13}\right)$ [B] $(-1,\ 2)$ [C] infinitely many [D] no solution

78. $\begin{cases} 4x-3y=5 \\ -12x+9y=-15 \end{cases}$

[A] $\left(-\frac{2}{17},\ -\frac{31}{17}\right)$ [B] $(8,\ -3)$ [C] infinitely many [D] no solution

79. $\begin{cases} 9x+12y=6 \\ 3x+4y=-2 \end{cases}$ [A] $(1,\ 2)$ [B] $(-2,\ 1)$ [C] infinitely many [D] no solution

Use elimination to solve the system of equations.

80. $\begin{cases} 4x - y = -1 \\ x - 2y = -4 \end{cases}$

[A] $(0, -1)$ [B] $\left(\frac{2}{7}, \frac{15}{7}\right)$ [C] infinitely many [D] no solution

81. $\begin{cases} 8x - 3y = -29 \\ 3x + y = -13 \end{cases}$

82. $\begin{cases} 4x - 5y = 43 \\ 5x + 6y = 17 \end{cases}$

83. $\begin{cases} 3x + 2y = -13 \\ 5x + 6y = -11 \end{cases}$

84. $\begin{cases} 4x - 5y = 31 \\ 5x + y = 17 \end{cases}$

85. $\begin{cases} 9x + 4y = -49 \\ 7x - 8y = -127 \end{cases}$

86. $\begin{cases} 5x + y = 12 \\ 7x - 2y = 27 \end{cases}$

87. $\begin{cases} 3x - 7y = 19 \\ 7x - 3y = 31 \end{cases}$

88. $\begin{cases} 8x + 7y = 33 \\ 5x - 4y = -38 \end{cases}$

Use elimination to solve the system of equations.

89. $\begin{cases} 5x+2y=27 \\ 6x-y=29 \end{cases}$

90. $\begin{cases} 9x-8y=-64 \\ 7x-6y=-50 \end{cases}$

91. $\begin{cases} 2x-y=-5 \\ 3x-4y=-10 \end{cases}$

92. $\begin{cases} 7x-6y=1 \\ 9x-4y=31 \end{cases}$

93. $\begin{cases} 3x-5y=-11 \\ 9x-15y=33 \end{cases}$

94. $\begin{cases} 7x-6y=-53 \\ 5x+8y=-1 \end{cases}$

95. $\begin{cases} 2x-3y=-23 \\ 8x+7y=3 \end{cases}$

96. $\begin{cases} 7x+4y=11 \\ 5x-8y=-79 \end{cases}$

97. $\begin{cases} 8x+28y=100 \\ 2x+7y=25 \end{cases}$

98. $\begin{cases} 9x-2y=-59 \\ 18x-4y=-118 \end{cases}$

Use elimination to solve the system of equations.

99. $\begin{cases} 5x + y = -39 \\ 3x - 7y = 7 \end{cases}$