

Simplifying Expressions (A)

Simplify each expression.

1. $z - 1 + 4$

6. $4x^2 + 1 - 4$

2. $c^2 + c + c$

7. $a^2 - 1 + 4$

3. $-2y^2 - y^2 + 5$

8. $y - 6y^2 + y^2$

4. $6v^2 - 4v - 4v$

9. $-3b - b^2 - 2b^2$

5. $3z^2 + 3z^2 + 4z$

10. $x + x - 1$

Simplifying Expressions (A) Answers

Simplify each expression.

$$\begin{aligned} 1. z - 1 + 4 \\ = z + 3 \end{aligned}$$

$$\begin{aligned} 6. 4x^2 + 1 - 4 \\ = 4x^2 - 3 \end{aligned}$$

$$\begin{aligned} 2. c^2 + c + c \\ = c^2 + 2c \end{aligned}$$

$$\begin{aligned} 7. a^2 - 1 + 4 \\ = a^2 + 3 \end{aligned}$$

$$\begin{aligned} 3. -2y^2 - y^2 + 5 \\ = -3y^2 + 5 \end{aligned}$$

$$\begin{aligned} 8. y - 6y^2 + y^2 \\ = -5y^2 + y \end{aligned}$$

$$\begin{aligned} 4. 6v^2 - 4v - 4v \\ = 6v^2 - 8v \end{aligned}$$

$$\begin{aligned} 9. -3b - b^2 - 2b^2 \\ = -3b^2 - 3b \end{aligned}$$

$$\begin{aligned} 5. 3z^2 + 3z^2 + 4z \\ = 6z^2 + 4z \end{aligned}$$

$$\begin{aligned} 10. x + x - 1 \\ = 2x - 1 \end{aligned}$$

Simplifying Expressions (B)

Simplify each expression.

1. $-6a - a^2 + a^2$

6. $5 - v^2 + 6$

2. $-1 - 1 + 3z$

7. $z - z^2 + z$

3. $y + y^2 + 5y$

8. $6x^2 - 2 - 1$

4. $-z + z + 4z^2$

9. $u^2 + 5u + u^2$

5. $-3u^2 - u - 2u^2$

10. $2b^2 + 1 + 4b^2$

Simplifying Expressions (B) Answers

Simplify each expression.

$$\begin{aligned} 1. & -6a - a^2 + a^2 \\ & = -6a \end{aligned}$$

$$\begin{aligned} 6. & 5 - v^2 + 6 \\ & = -v^2 + 11 \end{aligned}$$

$$\begin{aligned} 2. & -1 - 1 + 3z \\ & = 3z - 2 \end{aligned}$$

$$\begin{aligned} 7. & z - z^2 + z \\ & = -z^2 + 2z \end{aligned}$$

$$\begin{aligned} 3. & y + y^2 + 5y \\ & = y^2 + 6y \end{aligned}$$

$$\begin{aligned} 8. & 6x^2 - 2 - 1 \\ & = 6x^2 - 3 \end{aligned}$$

$$\begin{aligned} 4. & -z + z + 4z^2 \\ & = 4z^2 \end{aligned}$$

$$\begin{aligned} 9. & u^2 + 5u + u^2 \\ & = 2u^2 + 5u \end{aligned}$$

$$\begin{aligned} 5. & -3u^2 - u - 2u^2 \\ & = -5u^2 - u \end{aligned}$$

$$\begin{aligned} 10. & 2b^2 + 1 + 4b^2 \\ & = 6b^2 + 1 \end{aligned}$$

Simplifying Expressions (C)

Simplify each expression.

1. $4z^2 + 2 + 1$

6. $u - u + 6u^2$

2. $-3b^2 + 4 + 2b^2$

7. $z + z^2 + z^2$

3. $4a^2 - 5 - 1$

8. $-2a - 2 - 1$

4. $-b + 2 - b$

9. $x^2 + x - x^2$

5. $-1 + a^2 + 1$

10. $-y^2 + 6y + y^2$

Simplifying Expressions (C) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & 4z^2 + 2 + 1 \\ & = 4z^2 + 3 \end{aligned}$$

$$\begin{aligned} 6. \quad & u - u + 6u^2 \\ & = 6u^2 \end{aligned}$$

$$\begin{aligned} 2. \quad & -3b^2 + 4 + 2b^2 \\ & = -b^2 + 4 \end{aligned}$$

$$\begin{aligned} 7. \quad & z + z^2 + z^2 \\ & = 2z^2 + z \end{aligned}$$

$$\begin{aligned} 3. \quad & 4a^2 - 5 - 1 \\ & = 4a^2 - 6 \end{aligned}$$

$$\begin{aligned} 8. \quad & -2a - 2 - 1 \\ & = -2a - 3 \end{aligned}$$

$$\begin{aligned} 4. \quad & -b + 2 - b \\ & = -2b + 2 \end{aligned}$$

$$\begin{aligned} 9. \quad & x^2 + x - x^2 \\ & = x \end{aligned}$$

$$\begin{aligned} 5. \quad & -1 + a^2 + 1 \\ & = a^2 \end{aligned}$$

$$\begin{aligned} 10. \quad & -y^2 + 6y + y^2 \\ & = 6y \end{aligned}$$

Simplifying Expressions (A)

Simplify each expression.

1. $-1 - x^2 + 4x + 1 - x^2$

6. $3v^2 + 6z + 4 - vz + vz$

2. $5 - 2au + 1 - u + u$

7. $4y^2 - y + y^2 + 6y^2 - 1$

3. $-x^2 + 2 - 1 + 6x^2 - 4x^2$

8. $6 + 2au + 6a^2 + 1 + 4au$

4. $3u - 4 - 1 + 1 - 4uy$

9. $-1 + 3x + 3x^2 + x^2 + 6x^2$

5. $3y^2 + uy - u + 3y + 5uy$

10. $-1 - 1 - 3 + 4cy - cy$

Simplifying Expressions (A) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & -1 - x^2 + 4x + 1 - x^2 \\ & = -2x^2 + 4x \end{aligned}$$

$$\begin{aligned} 6. \quad & 3v^2 + 6z + 4 - vz + vz \\ & = 3v^2 + 6z + 4 \end{aligned}$$

$$\begin{aligned} 2. \quad & 5 - 2au + 1 - u + u \\ & = -2au + 6 \end{aligned}$$

$$\begin{aligned} 7. \quad & 4y^2 - y + y^2 + 6y^2 - 1 \\ & = 11y^2 - y - 1 \end{aligned}$$

$$\begin{aligned} 3. \quad & -x^2 + 2 - 1 + 6x^2 - 4x^2 \\ & = x^2 + 1 \end{aligned}$$

$$\begin{aligned} 8. \quad & 6 + 2au + 6a^2 + 1 + 4au \\ & = 6au + 6a^2 + 7 \end{aligned}$$

$$\begin{aligned} 4. \quad & 3u - 4 - 1 + 1 - 4uy \\ & = -4uy + 3u - 4 \end{aligned}$$

$$\begin{aligned} 9. \quad & -1 + 3x + 3x^2 + x^2 + 6x^2 \\ & = 10x^2 + 3x - 1 \end{aligned}$$

$$\begin{aligned} 5. \quad & 3y^2 + uy - u + 3y + 5uy \\ & = 3y^2 + 6uy - u + 3y \end{aligned}$$

$$\begin{aligned} 10. \quad & -1 - 1 - 3 + 4cy - cy \\ & = 3cy - 5 \end{aligned}$$

Simplifying Expressions (B)

Simplify each expression.

1. $-3a^2 - 3 + c + a^2 - 5a$

6. $bx - x + 5 + 5 + bx$

2. $-3a + 2x^2 - 1 + a^2 - 1$

7. $-1 - 1 + 5z^2 + z^2 + 5a$

3. $5u^2 + 1 + 1 + 5uv + 1$

8. $6 + cv + 1 - 6v + 6$

4. $a + a - ay + 3y + 4$

9. $3uz - 4 - 2z - 1 + 5z$

5. $1 + z - z + 4 + z$

10. $y^2 - 6yz + y - 1 + 1$

Simplifying Expressions (B) Answers

Simplify each expression.

$$\begin{aligned} 1. & -3a^2 - 3 + c + a^2 - 5a \\ & = -2a^2 + c - 5a - 3 \end{aligned}$$

$$\begin{aligned} 6. & bx - x + 5 + 5 + bx \\ & = 2bx - x + 10 \end{aligned}$$

$$\begin{aligned} 2. & -3a + 2x^2 - 1 + a^2 - 1 \\ & = 2x^2 + a^2 - 3a - 2 \end{aligned}$$

$$\begin{aligned} 7. & -1 - 1 + 5z^2 + z^2 + 5a \\ & = 6z^2 + 5a - 2 \end{aligned}$$

$$\begin{aligned} 3. & 5u^2 + 1 + 1 + 5uv + 1 \\ & = 5u^2 + 5uv + 3 \end{aligned}$$

$$\begin{aligned} 8. & 6 + cv + 1 - 6v + 6 \\ & = cv - 6v + 13 \end{aligned}$$

$$\begin{aligned} 4. & a + a - ay + 3y + 4 \\ & = -ay + 2a + 3y + 4 \end{aligned}$$

$$\begin{aligned} 9. & 3uz - 4 - 2z - 1 + 5z \\ & = 3uz + 3z - 5 \end{aligned}$$

$$\begin{aligned} 5. & 1 + z - z + 4 + z \\ & = z + 5 \end{aligned}$$

$$\begin{aligned} 10. & y^2 - 6yz + y - 1 + 1 \\ & = y^2 - 6yz + y \end{aligned}$$

Simplifying Expressions (C)

Simplify each expression.

1. $1 + bx + bx - 1 + x^2$

6. $-az + z - z^2 + 3z + z$

2. $-x + v^2 + v^2 - 1 - 1$

7. $y + c + 1 - y - y$

3. $-2 + u - uy - 1 + 3$

8. $6 + 6 + z - 4uz - 1$

4. $1 + 1 + b - 1 + 5ab$

9. $a^2 - x + 3x^2 + 6x^2 - 1$

5. $-2v^2 + 1 + 1 - v - v$

10. $-1 - 2 + c - 4c - 4c$

Simplifying Expressions (C) Answers

Simplify each expression.

$$\begin{aligned} 1. \quad & 1 + bx + bx - 1 + x^2 \\ & = 2bx + x^2 \end{aligned}$$

$$\begin{aligned} 6. \quad & -az + z - z^2 + 3z + z \\ & = -az - z^2 + 5z \end{aligned}$$

$$\begin{aligned} 2. \quad & -x + v^2 + v^2 - 1 - 1 \\ & = 2v^2 - x - 2 \end{aligned}$$

$$\begin{aligned} 7. \quad & y + c + 1 - y - y \\ & = -y + c + 1 \end{aligned}$$

$$\begin{aligned} 3. \quad & -2 + u - uy - 1 + 3 \\ & = -uy + u \end{aligned}$$

$$\begin{aligned} 8. \quad & 6 + 6 + z - 4uz - 1 \\ & = -4uz + z + 11 \end{aligned}$$

$$\begin{aligned} 4. \quad & 1 + 1 + b - 1 + 5ab \\ & = 5ab + b + 1 \end{aligned}$$

$$\begin{aligned} 9. \quad & a^2 - x + 3x^2 + 6x^2 - 1 \\ & = a^2 + 9x^2 - x - 1 \end{aligned}$$

$$\begin{aligned} 5. \quad & -2v^2 + 1 + 1 - v - v \\ & = -2v^2 - 2v + 2 \end{aligned}$$

$$\begin{aligned} 10. \quad & -1 - 2 + c - 4c - 4c \\ & = -7c - 3 \end{aligned}$$

Exponent Rules (A)

Simplify each expression.

1. $\frac{7^6}{7^4}$

2. $\frac{4^1}{4^0}$

3. $2^6 \cdot 2^{-9}$

4. $((-4)^9)^9$

5. $\frac{3^2}{3^3}$

6. $(-4)^7 \cdot (-8)^7$

7. $\frac{(-2)^{-8}}{(-2)^{-1}}$

8. $(-8)^2 \cdot (-8)^{-5}$

9. $(-5)^{-4} \cdot 3^{-4}$

10. $(6^{-9})^1$

Exponent Rules (A) Answers

Simplify each expression.

$$1. \frac{7^6}{7^4}$$

$$= 7^2$$

$$2. \frac{4^1}{4^0}$$

$$= 4$$

$$3. 2^6 \cdot 2^{-9}$$

$$= 2^{-3} = \frac{1}{2^3}$$

$$4. ((-4)^9)^9$$

$$= (-4)^{81}$$

$$5. \frac{3^2}{3^3}$$

$$= 3^{-1} = \frac{1}{3}$$

$$6. (-4)^7 \cdot (-8)^7$$

$$= 32^7$$

$$7. \frac{(-2)^{-8}}{(-2)^{-1}}$$

$$= (-2)^{-7} = \frac{1}{(-2)^7}$$

$$8. (-8)^2 \cdot (-8)^{-5}$$

$$= (-8)^{-3} = \frac{1}{(-8)^3}$$

$$9. (-5)^{-4} \cdot 3^{-4}$$

$$= (-15)^{-4} = \frac{1}{(-15)^4}$$

$$10. (6^{-9})^1$$

$$= 6^{-9} = \frac{1}{6^9}$$

Exponent Rules (B)

Simplify each expression.

1. $4^9 \cdot 4^{-2}$

2. $\frac{6^{-6}}{6^5}$

3. $\frac{4^5}{4^9}$

4. $(9^2)^{-5}$

5. $\frac{8^8}{8^8}$

6. $\frac{(-8)^{-1}}{(-8)^{-5}}$

7. $(-5)^2 \cdot 7^2$

8. $2^{-2} \cdot 2^{-1}$

9. $((-5)^{-2})^{-6}$

10. $(-3)^8 \cdot 3^8$

Exponent Rules (B) Answers

Simplify each expression.

1. $4^9 \cdot 4^{-2}$

$$= 4^7$$

2. $\frac{6^{-6}}{6^5}$

$$= 6^{-11} = \frac{1}{6^{11}}$$

3. $\frac{4^5}{4^9}$

$$= 4^{-4} = \frac{1}{4^4}$$

4. $(9^2)^{-5}$

$$= 9^{-10} = \frac{1}{9^{10}}$$

5. $\frac{8^8}{8^8}$

$$= 8^0 = 1$$

6. $\frac{(-8)^{-1}}{(-8)^{-5}}$

$$= (-8)^4$$

7. $(-5)^2 \cdot 7^2$

$$= (-35)^2$$

8. $2^{-2} \cdot 2^{-1}$

$$= 2^{-3} = \frac{1}{2^3}$$

9. $((-5)^{-2})^{-6}$

$$= (-5)^{12}$$

10. $(-3)^8 \cdot 3^8$

$$= (-9)^8$$

Exponent Rules (C)

Simplify each expression.

1. $\frac{8^1}{8^6}$

2. $\frac{(-3)^0}{(-3)^{-6}}$

3. $(-8)^{-7} \cdot (-9)^{-7}$

4. $(-4)^{-5} \cdot (-4)^{-2}$

5. $((-8)^{-8})^0$

6. $((-3)^{-3})^2$

7. $\frac{5^2}{5^5}$

8. $\frac{(-5)^{-8}}{(-5)^{-8}}$

9. $2^{-7} \cdot 2^9$

10. $(-5)^0 \cdot (-7)^0$

Exponent Rules (C) Answers

Simplify each expression.

$$1. \frac{8^1}{8^6}$$

$$= 8^{-5} = \frac{1}{8^5}$$

$$2. \frac{(-3)^0}{(-3)^{-6}}$$

$$= (-3)^6$$

$$3. (-8)^{-7} \cdot (-9)^{-7}$$

$$= 72^{-7} = \frac{1}{72^7}$$

$$4. (-4)^{-5} \cdot (-4)^{-2}$$

$$= (-4)^{-7} = \frac{1}{(-4)^7}$$

$$5. ((-8)^{-8})^0$$

$$= (-8)^0 = 1$$

$$6. ((-3)^{-3})^2$$

$$= (-3)^{-6} = \frac{1}{(-3)^6}$$

$$7. \frac{5^2}{5^5}$$

$$= 5^{-3} = \frac{1}{5^3}$$

$$8. \frac{(-5)^{-8}}{(-5)^{-8}}$$

$$= (-5)^0 = 1$$

$$9. 2^{-7} \cdot 2^9$$

$$= 2^2$$

$$10. (-5)^0 \cdot (-7)^0$$

$$= 35^0 = 1$$

Exponent Rules (D)

Simplify each expression.

1. $\frac{2^8}{2^6}$

2. $\frac{(-8)^{-8}}{(-8)^1}$

3. $(-6)^2 \cdot (-6)^7$

4. $\frac{7^{-2}}{7^{-8}}$

5. $(-4)^{-3} \cdot (-4)^{-3}$

6. $(3^{-6})^{-9}$

7. $\frac{3^{-9}}{3^5}$

8. $6^9 \cdot 3^9$

9. $((-9)^{-7})^3$

10. $3^3 \cdot 3^{-1}$

Exponent Rules (D) Answers

Simplify each expression.

$$1. \frac{2^8}{2^6}$$

$$= 2^2$$

$$2. \frac{(-8)^{-8}}{(-8)^1}$$

$$= (-8)^{-9} = \frac{1}{(-8)^9}$$

$$3. (-6)^2 \cdot (-6)^7$$

$$= (-6)^9$$

$$4. \frac{7^{-2}}{7^{-8}}$$

$$= 7^6$$

$$5. (-4)^{-3} \cdot (-4)^{-3}$$

$$= (-4)^{-6} = \frac{1}{(-4)^6}$$

$$6. (3^{-6})^{-9}$$

$$= 3^{54}$$

$$7. \frac{3^{-9}}{3^5}$$

$$= 3^{-14} = \frac{1}{3^{14}}$$

$$8. 6^9 \cdot 3^9$$

$$= 18^9$$

$$9. ((-9)^{-7})^3$$

$$= (-9)^{-21} = \frac{1}{(-9)^{21}}$$

$$10. 3^3 \cdot 3^{-1}$$

$$= 3^2$$

Exponent Rules (E)

Simplify each expression.

1. $(-4)^{-9} \cdot (-4)^5$

2. $\frac{8^{-2}}{8^6}$

3. $(-2)^5 \cdot (-9)^5$

4. $\frac{(-7)^4}{(-7)^4}$

5. $\frac{(-2)^{-6}}{(-2)^{-8}}$

6. $(-4)^3 \cdot 3^3$

7. $(-6)^9 \cdot (-6)^9$

8. $\frac{(-6)^0}{(-6)^7}$

9. $(7^4)^2$

10. $((-7)^7)^7$

Exponent Rules (E) Answers

Simplify each expression.

1. $(-4)^{-9} \cdot (-4)^5$

$$= (-4)^{-4} = \frac{1}{(-4)^4}$$

2. $\frac{8^{-2}}{8^6}$

$$= 8^{-8} = \frac{1}{8^8}$$

3. $(-2)^5 \cdot (-9)^5$

$$= 18^5$$

4. $\frac{(-7)^4}{(-7)^4}$

$$= (-7)^0 = 1$$

5. $\frac{(-2)^{-6}}{(-2)^{-8}}$

$$= (-2)^2$$

6. $(-4)^3 \cdot 3^3$

$$= (-12)^3$$

7. $(-6)^9 \cdot (-6)^9$

$$= (-6)^{18}$$

8. $\frac{(-6)^0}{(-6)^7}$

$$= (-6)^{-7} = \frac{1}{(-6)^7}$$

9. $(7^4)^2$

$$= 7^8$$

10. $((-7)^7)^7$

$$= (-7)^{49}$$

Simple Linear Equations (A)

Solve for each variable.

1. $3b + 9 = -18$

6. $3c - 9 = -27$

11. $-2a - 8 = -4$

2. $3v + 1 = 22$

7. $-3c - 4 = 2$

12. $3z - 2 = -26$

3. $3y - 2 = 10$

8. $-3c + 8 = -10$

13. $2u + 7 = 5$

4. $2z + 1 = 15$

9. $2c - 8 = -18$

14. $3a - (-1) = -5$

5. $-2b - (-7) = 11$

10. $3a - 5 = -23$

15. $-2u + (-1) = -13$

Simple Linear Equations (A) Answers

Solve for each variable.

1. $3b + 9 = -18$
 $b = -9$

6. $3c - 9 = -27$
 $c = -6$

11. $-2a - 8 = -4$
 $a = -2$

2. $3v + 1 = 22$
 $v = 7$

7. $-3c - 4 = 2$
 $c = -2$

12. $3z - 2 = -26$
 $z = -8$

3. $3y - 2 = 10$
 $y = 4$

8. $-3c + 8 = -10$
 $c = 6$

13. $2u + 7 = 5$
 $u = -1$

4. $2z + 1 = 15$
 $z = 7$

9. $2c - 8 = -18$
 $c = -5$

14. $3a - (-1) = -5$
 $a = -2$

5. $-2b - (-7) = 11$
 $b = -2$

10. $3a - 5 = -23$
 $a = -6$

15. $-2u + (-1) = -13$
 $u = 6$

Simple Linear Equations (B)

Solve for each variable.

1. $2b + (-7) = -21$

6. $2b - 4 = -18$

11. $2x + 8 = 4$

2. $-3y + 4 = 31$

7. $-2a - (-9) = 23$

12. $-3v + (-4) = 11$

3. $-2a + 2 = -18$

8. $-3a + 1 = 1$

13. $2v - 10 = 0$

4. $-2y - 6 = 6$

9. $2v - 9 = 5$

14. $3u + 9 = 15$

5. $-2c + 7 = 27$

10. $3z - (-10) = 1$

15. $-2c - 7 = -5$

Simple Linear Equations (B) Answers

Solve for each variable.

1. $2b + (-7) = -21$
 $b = -7$

6. $2b - 4 = -18$
 $b = -7$

11. $2x + 8 = 4$
 $x = -2$

2. $-3y + 4 = 31$
 $y = -9$

7. $-2a - (-9) = 23$
 $a = -7$

12. $-3v + (-4) = 11$
 $v = -5$

3. $-2a + 2 = -18$
 $a = 10$

8. $-3a + 1 = 1$
 $a = 0$

13. $2v - 10 = 0$
 $v = 5$

4. $-2y - 6 = 6$
 $y = -6$

9. $2v - 9 = 5$
 $v = 7$

14. $3u + 9 = 15$
 $u = 2$

5. $-2c + 7 = 27$
 $c = -10$

10. $3z - (-10) = 1$
 $z = -3$

15. $-2c - 7 = -5$
 $c = -1$

Simple Linear Equations (C)

Solve for each variable.

1. $-3u + (-6) = 21$

6. $2c - (-7) = 13$

11. $-2u - 2 = 14$

2. $3c + (-2) = -20$

7. $2v - (-3) = 13$

12. $-3y + (-6) = -27$

3. $2c - 8 = -18$

8. $2v - (-8) = 20$

13. $2y - 9 = -19$

4. $-3x - (-5) = 32$

9. $-3u - 2 = 13$

14. $-2z - 1 = 9$

5. $2x - 4 = -18$

10. $-3y + 2 = 26$

15. $-3z + 1 = -26$

Simple Linear Equations (C) Answers

Solve for each variable.

1. $-3u + (-6) = 21$
 $u = -9$

6. $2c - (-7) = 13$
 $c = 3$

11. $-2u - 2 = 14$
 $u = -8$

2. $3c + (-2) = -20$
 $c = -6$

7. $2v - (-3) = 13$
 $v = 5$

12. $-3y + (-6) = -27$
 $y = 7$

3. $2c - 8 = -18$
 $c = -5$

8. $2v - (-8) = 20$
 $v = 6$

13. $2y - 9 = -19$
 $y = -5$

4. $-3x - (-5) = 32$
 $x = -9$

9. $-3u - 2 = 13$
 $u = -5$

14. $-2z - 1 = 9$
 $z = -5$

5. $2x - 4 = -18$
 $x = -7$

10. $-3y + 2 = 26$
 $y = -8$

15. $-3z + 1 = -26$
 $z = 9$

Simple Linear Equations (D)

Solve for each variable.

1. $-2c + 1 = 15$

6. $2z + 10 = 6$

11. $-3c - 4 = -7$

2. $3c - 9 = -15$

7. $2a - (-8) = 18$

12. $-2v + 9 = 27$

3. $3a - (-4) = 7$

8. $3c - 3 = 27$

13. $2a - 5 = -3$

4. $-2u + 8 = 4$

9. $-2a - 3 = -15$

14. $3b + (-7) = 14$

5. $3x - (-7) = 25$

10. $-3c + (-7) = 17$

15. $2a + 1 = 3$

Simple Linear Equations (D) Answers

Solve for each variable.

1. $-2c + 1 = 15$
 $c = -7$

6. $2z + 10 = 6$
 $z = -2$

11. $-3c - 4 = -7$
 $c = 1$

2. $3c - 9 = -15$
 $c = -2$

7. $2a - (-8) = 18$
 $a = 5$

12. $-2v + 9 = 27$
 $v = -9$

3. $3a - (-4) = 7$
 $a = 1$

8. $3c - 3 = 27$
 $c = 10$

13. $2a - 5 = -3$
 $a = 1$

4. $-2u + 8 = 4$
 $u = 2$

9. $-2a - 3 = -15$
 $a = 6$

14. $3b + (-7) = 14$
 $b = 7$

5. $3x - (-7) = 25$
 $x = 6$

10. $-3c + (-7) = 17$
 $c = -8$

15. $2a + 1 = 3$
 $a = 1$

Simple Linear Equations (E)

Solve for each variable.

1. $-3z + (-8) = 1$

6. $2v - 10 = -2$

11. $-2a - (-4) = 10$

2. $2v - 7 = 11$

7. $2u + (-8) = -24$

12. $-3u - 4 = -19$

3. $-3a - (-3) = -3$

8. $2c + 7 = 13$

13. $3u - (-10) = -2$

4. $2y - 7 = -1$

9. $3z + 8 = -7$

14. $-2u + 1 = 7$

5. $-2y - (-9) = 9$

10. $2x - (-4) = 0$

15. $2a + 9 = 11$

Simple Linear Equations (E) Answers

Solve for each variable.

1. $-3z + (-8) = 1$
 $z = -3$

6. $2v - 10 = -2$
 $v = 4$

11. $-2a - (-4) = 10$
 $a = -3$

2. $2v - 7 = 11$
 $v = 9$

7. $2u + (-8) = -24$
 $u = -8$

12. $-3u - 4 = -19$
 $u = 5$

3. $-3a - (-3) = -3$
 $a = 2$

8. $2c + 7 = 13$
 $c = 3$

13. $3u - (-10) = -2$
 $u = -4$

4. $2y - 7 = -1$
 $y = 3$

9. $3z + 8 = -7$
 $z = -5$

14. $-2u + 1 = 7$
 $u = -3$

5. $-2y - (-9) = 9$
 $y = 0$

10. $2x - (-4) = 0$
 $x = -2$

15. $2a + 9 = 11$
 $a = 1$

Simple Linear Equations (A)

Solve for each variable.

1. $8 + \frac{2}{z} = 10$

6. $9x = 9$

11. $\frac{2}{v} + 7 = 9$

2. $3v - 4 = 5$

7. $\frac{v}{5} = 7$

12. $7z = 63$

3. $\frac{z}{5} + 10 = 13$

8. $\frac{b}{5} = 7$

13. $\frac{6}{c} = 2$

4. $\frac{12}{v} = 2$

9. $\frac{v}{2} = 3$

14. $\frac{42}{z} = 7$

5. $3c - 6 = 21$

10. $\frac{90}{x} + 3 = 12$

15. $\frac{24}{b} = 4$

Simple Linear Equations (A) Answers

Solve for each variable.

$$1. 8 + \frac{2}{z} = 10$$
$$z = 1$$

$$6. 9x = 9$$
$$x = 1$$

$$11. \frac{2}{v} + 7 = 9$$
$$v = 1$$

$$2. 3v - 4 = 5$$
$$v = 3$$

$$7. \frac{v}{5} = 7$$
$$v = 35$$

$$12. 7z = 63$$
$$z = 9$$

$$3. \frac{z}{5} + 10 = 13$$
$$z = 15$$

$$8. \frac{b}{5} = 7$$
$$b = 35$$

$$13. \frac{6}{c} = 2$$
$$c = 3$$

$$4. \frac{12}{v} = 2$$
$$v = 6$$

$$9. \frac{v}{2} = 3$$
$$v = 6$$

$$14. \frac{42}{z} = 7$$
$$z = 6$$

$$5. 3c - 6 = 21$$
$$c = 9$$

$$10. \frac{90}{x} + 3 = 12$$
$$x = 10$$

$$15. \frac{24}{b} = 4$$
$$b = 6$$

Simple Linear Equations (B)

Solve for each variable.

1. $\frac{8}{z} = 8$

6. $\frac{10}{z} = 2$

11. $\frac{b}{8} = 5$

2. $\frac{a}{3} = 6$

7. $\frac{a}{6} - 3 = 0$

12. $\frac{c}{2} = 7$

3. $\frac{a}{9} + 8 = 14$

8. $\frac{y}{3} = 9$

13. $\frac{8}{b} = 2$

4. $b + 8 = 14$

9. $\frac{49}{y} + 7 = 14$

14. $5b = 20$

5. $7 + \frac{12}{b} = 13$

10. $\frac{12}{z} = 6$

15. $u + 3 = 9$

Simple Linear Equations (B) Answers

Solve for each variable.

$$1. \frac{8}{z} = 8$$
$$z = 1$$

$$6. \frac{10}{z} = 2$$
$$z = 5$$

$$11. \frac{b}{8} = 5$$
$$b = 40$$

$$2. \frac{a}{3} = 6$$
$$a = 18$$

$$7. \frac{a}{6} - 3 = 0$$
$$a = 18$$

$$12. \frac{c}{2} = 7$$
$$c = 14$$

$$3. \frac{a}{9} + 8 = 14$$
$$a = 54$$

$$8. \frac{y}{3} = 9$$
$$y = 27$$

$$13. \frac{8}{b} = 2$$
$$b = 4$$

$$4. b + 8 = 14$$
$$b = 6$$

$$9. \frac{49}{y} + 7 = 14$$
$$y = 7$$

$$14. 5b = 20$$
$$b = 4$$

$$5. 7 + \frac{12}{b} = 13$$
$$b = 2$$

$$10. \frac{12}{z} = 6$$
$$z = 2$$

$$15. u + 3 = 9$$
$$u = 6$$

Simple Linear Equations (C)

Solve for each variable.

1. $3 + \frac{54}{x} = 9$

6. $7x = 28$

11. $\frac{54}{b} = 6$

2. $\frac{49}{c} + 10 = 17$

7. $1 + \frac{b}{3} = 5$

12. $\frac{a}{6} = 7$

3. $3v + 2 = 14$

8. $\frac{90}{a} = 9$

13. $4z = 12$

4. $9u = 18$

9. $c - 2 = 4$

14. $8 + \frac{z}{2} = 11$

5. $\frac{21}{b} = 7$

10. $8y = 40$

15. $\frac{u}{6} - 4 = 5$

Simple Linear Equations (C) Answers

Solve for each variable.

$$1. 3 + \frac{54}{x} = 9$$
$$x = 9$$

$$6. 7x = 28$$
$$x = 4$$

$$11. \frac{54}{b} = 6$$
$$b = 9$$

$$2. \frac{49}{c} + 10 = 17$$
$$c = 7$$

$$7. 1 + \frac{b}{3} = 5$$
$$b = 12$$

$$12. \frac{a}{6} = 7$$
$$a = 42$$

$$3. 3v + 2 = 14$$
$$v = 4$$

$$8. \frac{90}{a} = 9$$
$$a = 10$$

$$13. 4z = 12$$
$$z = 3$$

$$4. 9u = 18$$
$$u = 2$$

$$9. c - 2 = 4$$
$$c = 6$$

$$14. 8 + \frac{z}{2} = 11$$
$$z = 6$$

$$5. \frac{21}{b} = 7$$
$$b = 3$$

$$10. 8y = 40$$
$$y = 5$$

$$15. \frac{u}{6} - 4 = 5$$
$$u = 54$$

Simple Linear Equations (D)

Solve for each variable.

1. $\frac{2}{x} + 7 = 9$

6. $\frac{2}{c} = 2$

11. $3v + 10 = 25$

2. $\frac{15}{y} = 5$

7. $2x - 7 = 13$

12. $u + 10 = 17$

3. $9 - \frac{a}{4} = 2$

8. $x + 6 = 11$

13. $5b = 5$

4. $b + 9 = 18$

9. $3u - 3 = 3$

14. $3u + 3 = 15$

5. $u + 7 = 9$

10. $\frac{35}{y} = 5$

15. $\frac{21}{a} = 7$

Simple Linear Equations (D) Answers

Solve for each variable.

$$1. \frac{2}{x} + 7 = 9$$
$$x = 1$$

$$6. \frac{2}{c} = 2$$
$$c = 1$$

$$11. 3v + 10 = 25$$
$$v = 5$$

$$2. \frac{15}{y} = 5$$
$$y = 3$$

$$7. 2x - 7 = 13$$
$$x = 10$$

$$12. u + 10 = 17$$
$$u = 7$$

$$3. 9 - \frac{a}{4} = 2$$
$$a = 28$$

$$8. x + 6 = 11$$
$$x = 5$$

$$13. 5b = 5$$
$$b = 1$$

$$4. b + 9 = 18$$
$$b = 9$$

$$9. 3u - 3 = 3$$
$$u = 2$$

$$14. 3u + 3 = 15$$
$$u = 4$$

$$5. u + 7 = 9$$
$$u = 2$$

$$10. \frac{35}{y} = 5$$
$$y = 7$$

$$15. \frac{21}{a} = 7$$
$$a = 3$$

Simple Linear Equations (E)

Solve for each variable.

1. $\frac{80}{v} = 8$

6. $9 - \frac{x}{7} = 7$

11. $\frac{28}{c} = 7$

2. $\frac{b}{7} = 6$

7. $10 + \frac{u}{2} = 14$

12. $c + 4 = 9$

3. $\frac{y}{9} = 8$

8. $10 + \frac{z}{6} = 12$

13. $x - 5 = 4$

4. $\frac{63}{a} + 4 = 11$

9. $\frac{8}{a} = 4$

14. $8v = 8$

5. $5b = 10$

10. $y - 2 = 3$

15. $7c = 21$

Simple Linear Equations (E) Answers

Solve for each variable.

$$1. \frac{80}{v} = 8$$
$$v = 10$$

$$6. 9 - \frac{x}{7} = 7$$
$$x = 14$$

$$11. \frac{28}{c} = 7$$
$$c = 4$$

$$2. \frac{b}{7} = 6$$
$$b = 42$$

$$7. 10 + \frac{u}{2} = 14$$
$$u = 8$$

$$12. c + 4 = 9$$
$$c = 5$$

$$3. \frac{y}{9} = 8$$
$$y = 72$$

$$8. 10 + \frac{z}{6} = 12$$
$$z = 12$$

$$13. x - 5 = 4$$
$$x = 9$$

$$4. \frac{63}{a} + 4 = 11$$
$$a = 9$$

$$9. \frac{8}{a} = 4$$
$$a = 2$$

$$14. 8v = 8$$
$$v = 1$$

$$5. 5b = 10$$
$$b = 2$$

$$10. y - 2 = 3$$
$$y = 5$$

$$15. 7c = 21$$
$$c = 3$$

Linear Systems (A)

Solve each system of equations.

1.
$$\begin{aligned} -6v - 6y &= 66 \\ 2v + 4y &= -32 \end{aligned}$$

5.
$$\begin{aligned} 2y - 6z &= -30 \\ -y - z &= -1 \end{aligned}$$

2.
$$\begin{aligned} 3a - 3x &= -3 \\ -5a + x &= -3 \end{aligned}$$

6.
$$\begin{aligned} -5a + c &= -30 \\ 4a - 5c &= 24 \end{aligned}$$

3.
$$\begin{aligned} 5a - v &= -23 \\ -a + v &= 3 \end{aligned}$$

7.
$$\begin{aligned} -3v + 3x &= 12 \\ 3v - 6x &= -21 \end{aligned}$$

4.
$$\begin{aligned} -6a - 5v &= 46 \\ -6a - 4v &= 44 \end{aligned}$$

8.
$$\begin{aligned} -3v - 3x &= 15 \\ 5v + x &= -29 \end{aligned}$$

Linear Systems (A) Answers

Solve each system of equations.

$$\begin{aligned} 1. \quad & -6v - 6y = 66 \\ & 2v + 4y = -32 \\ & v = -6, y = -5 \end{aligned}$$

$$\begin{aligned} 5. \quad & 2y - 6z = -30 \\ & -y - z = -1 \\ & y = -3, z = 4 \end{aligned}$$

$$\begin{aligned} 2. \quad & 3a - 3x = -3 \\ & -5a + x = -3 \\ & a = 1, x = 2 \end{aligned}$$

$$\begin{aligned} 6. \quad & -5a + c = -30 \\ & 4a - 5c = 24 \\ & a = 6, c = 0 \end{aligned}$$

$$\begin{aligned} 3. \quad & 5a - v = -23 \\ & -a + v = 3 \\ & a = -5, v = -2 \end{aligned}$$

$$\begin{aligned} 7. \quad & -3v + 3x = 12 \\ & 3v - 6x = -21 \\ & v = -1, x = 3 \end{aligned}$$

$$\begin{aligned} 4. \quad & -6a - 5v = 46 \\ & -6a - 4v = 44 \\ & a = -6, v = -2 \end{aligned}$$

$$\begin{aligned} 8. \quad & -3v - 3x = 15 \\ & 5v + x = -29 \\ & v = -6, x = 1 \end{aligned}$$

Linear Systems (B)

Solve each system of equations.

1. $-a - z = 4$
 $-3a + 3z = 24$

5. $-5x + 6z = 37$
 $5x + 4z = -17$

2. $-a + 5v = 18$
 $5a + 6v = 3$

6. $5a - z = -8$
 $-2a + 5z = -6$

3. $4u - 2v = 26$
 $-2u - 4v = 12$

7. $a - 2c = -8$
 $-a + 5c = 17$

4. $-2a + 5z = -32$
 $-5a - 6z = -6$

8. $-5x + 4y = 23$
 $2x + 6y = 6$

Linear Systems (B) Answers

Solve each system of equations.

$$\begin{aligned} 1. \quad & -a - z = 4 \\ & -3a + 3z = 24 \\ & a = -6, z = 2 \end{aligned}$$

$$\begin{aligned} 5. \quad & -5x + 6z = 37 \\ & 5x + 4z = -17 \\ & x = -5, z = 2 \end{aligned}$$

$$\begin{aligned} 2. \quad & -a + 5v = 18 \\ & 5a + 6v = 3 \\ & a = -3, v = 3 \end{aligned}$$

$$\begin{aligned} 6. \quad & 5a - z = -8 \\ & -2a + 5z = -6 \\ & a = -2, z = -2 \end{aligned}$$

$$\begin{aligned} 3. \quad & 4u - 2v = 26 \\ & -2u - 4v = 12 \\ & u = 4, v = -5 \end{aligned}$$

$$\begin{aligned} 7. \quad & a - 2c = -8 \\ & -a + 5c = 17 \\ & a = -2, c = 3 \end{aligned}$$

$$\begin{aligned} 4. \quad & -2a + 5z = -32 \\ & -5a - 6z = -6 \\ & a = 6, z = -4 \end{aligned}$$

$$\begin{aligned} 8. \quad & -5x + 4y = 23 \\ & 2x + 6y = 6 \\ & x = -3, y = 2 \end{aligned}$$

Linear Systems (C)

Solve each system of equations.

1. $4b - u = 3$
 $-3b + u = -3$

5. $5c + 2z = -25$
 $-4c - 4z = 20$

2. $-6c - 2u = -6$
 $-5c - 6u = -18$

6. $-3a + b = -15$
 $2a + 4b = 10$

3. $2x + 6z = 40$
 $4x - 4z = 0$

7. $2b - 2v = -6$
 $-2b + 4v = 2$

4. $-6c + 6y = 6$
 $4c + 6y = -24$

8. $3u + 2y = 4$
 $2u + 3y = 11$

Linear Systems (C) Answers

Solve each system of equations.

$$\begin{aligned} 1. \quad & 4b - u = 3 \\ & -3b + u = -3 \\ & b = 0, u = -3 \end{aligned}$$

$$\begin{aligned} 5. \quad & 5c + 2z = -25 \\ & -4c - 4z = 20 \\ & c = -5, z = 0 \end{aligned}$$

$$\begin{aligned} 2. \quad & -6c - 2u = -6 \\ & -5c - 6u = -18 \\ & c = 0, u = 3 \end{aligned}$$

$$\begin{aligned} 6. \quad & -3a + b = -15 \\ & 2a + 4b = 10 \\ & a = 5, b = 0 \end{aligned}$$

$$\begin{aligned} 3. \quad & 2x + 6z = 40 \\ & 4x - 4z = 0 \\ & x = 5, z = 5 \end{aligned}$$

$$\begin{aligned} 7. \quad & 2b - 2v = -6 \\ & -2b + 4v = 2 \\ & b = -5, v = -2 \end{aligned}$$

$$\begin{aligned} 4. \quad & -6c + 6y = 6 \\ & 4c + 6y = -24 \\ & c = -3, y = -2 \end{aligned}$$

$$\begin{aligned} 8. \quad & 3u + 2y = 4 \\ & 2u + 3y = 11 \\ & u = -2, y = 5 \end{aligned}$$

Linear Systems (D)

Solve each system of equations.

$$\begin{aligned} 1. \quad & -5u + 2x = 22 \\ & -u - 6x = -34 \end{aligned}$$

$$\begin{aligned} 5. \quad & 6u - 2v = 18 \\ & 5u - 4v = 8 \end{aligned}$$

$$\begin{aligned} 2. \quad & 3a + 4c = -19 \\ & 5a + 2c = -13 \end{aligned}$$

$$\begin{aligned} 6. \quad & 5v - 4x = 34 \\ & 6v - 2x = 24 \end{aligned}$$

$$\begin{aligned} 3. \quad & -3b - u = -12 \\ & -b + 2u = -4 \end{aligned}$$

$$\begin{aligned} 7. \quad & 2a - 4u = 10 \\ & 3a + u = -6 \end{aligned}$$

$$\begin{aligned} 4. \quad & -2u + 6x = 0 \\ & -4u + 3x = 9 \end{aligned}$$

$$\begin{aligned} 8. \quad & 6a - 5v = -49 \\ & -4a - 6v = -14 \end{aligned}$$

Linear Systems (D) Answers

Solve each system of equations.

$$\begin{aligned} 1. \quad & -5u + 2x = 22 \\ & -u - 6x = -34 \\ & u = -2, x = 6 \end{aligned}$$

$$\begin{aligned} 5. \quad & 6u - 2v = 18 \\ & 5u - 4v = 8 \\ & u = 4, v = 3 \end{aligned}$$

$$\begin{aligned} 2. \quad & 3a + 4c = -19 \\ & 5a + 2c = -13 \\ & a = -1, c = -4 \end{aligned}$$

$$\begin{aligned} 6. \quad & 5v - 4x = 34 \\ & 6v - 2x = 24 \\ & v = 2, x = -6 \end{aligned}$$

$$\begin{aligned} 3. \quad & -3b - u = -12 \\ & -b + 2u = -4 \\ & b = 4, u = 0 \end{aligned}$$

$$\begin{aligned} 7. \quad & 2a - 4u = 10 \\ & 3a + u = -6 \\ & a = -1, u = -3 \end{aligned}$$

$$\begin{aligned} 4. \quad & -2u + 6x = 0 \\ & -4u + 3x = 9 \\ & u = -3, x = -1 \end{aligned}$$

$$\begin{aligned} 8. \quad & 6a - 5v = -49 \\ & -4a - 6v = -14 \\ & a = -4, v = 5 \end{aligned}$$

Linear Systems (E)

Solve each system of equations.

1.
$$\begin{aligned} -5a - 4c &= -4 \\ 2a - c &= -14 \end{aligned}$$

5.
$$\begin{aligned} -2u + 3x &= 4 \\ -4u - x &= -6 \end{aligned}$$

2.
$$\begin{aligned} 3b - 2u &= -6 \\ 6b + 4u &= -60 \end{aligned}$$

6.
$$\begin{aligned} -2u + 4v &= -12 \\ -2u - 4v &= -4 \end{aligned}$$

3.
$$\begin{aligned} 6v + 3x &= 21 \\ 6v - x &= 33 \end{aligned}$$

7.
$$\begin{aligned} b - 4z &= -25 \\ 4b - 2z &= -30 \end{aligned}$$

4.
$$\begin{aligned} 5u - 4y &= -38 \\ -3u - y &= 16 \end{aligned}$$

8.
$$\begin{aligned} -4a - 2x &= 22 \\ a + 6x &= 0 \end{aligned}$$

Linear Systems (E) Answers

Solve each system of equations.

$$\begin{aligned} 1. \quad & -5a - 4c = -4 \\ & 2a - c = -14 \\ & a = -4, c = 6 \end{aligned}$$

$$\begin{aligned} 5. \quad & -2u + 3x = 4 \\ & -4u - x = -6 \\ & u = 1, x = 2 \end{aligned}$$

$$\begin{aligned} 2. \quad & 3b - 2u = -6 \\ & 6b + 4u = -60 \\ & b = -6, u = -6 \end{aligned}$$

$$\begin{aligned} 6. \quad & -2u + 4v = -12 \\ & -2u - 4v = -4 \\ & u = 4, v = -1 \end{aligned}$$

$$\begin{aligned} 3. \quad & 6v + 3x = 21 \\ & 6v - x = 33 \\ & v = 5, x = -3 \end{aligned}$$

$$\begin{aligned} 7. \quad & b - 4z = -25 \\ & 4b - 2z = -30 \\ & b = -5, z = 5 \end{aligned}$$

$$\begin{aligned} 4. \quad & 5u - 4y = -38 \\ & -3u - y = 16 \\ & u = -6, y = 2 \end{aligned}$$

$$\begin{aligned} 8. \quad & -4a - 2x = 22 \\ & a + 6x = 0 \\ & a = -6, x = 1 \end{aligned}$$

Linear Systems (A)

Solve each system of equations.

1. $6b + 4y = 54$
 $4b = 20$

5. $2b + c = 12$
 $2b = 10$

2. $a + 4x = 11$
 $6a = 18$

6. $6c + z = 31$
 $5c = 25$

3. $4u + 5v = 30$
 $5u = 25$

7. $6b + 4v = 14$
 $5b = 5$

4. $2u + 5y = 15$
 $4u = 20$

8. $2x + 6z = 14$
 $5x = 5$

Linear Systems (A) Answers

Solve each system of equations.

$$\begin{aligned} 1. \quad & 6b + 4y = 54 \\ & 4b = 20 \\ & b = 5, y = 6 \end{aligned}$$

$$\begin{aligned} 5. \quad & 2b + c = 12 \\ & 2b = 10 \\ & b = 5, c = 2 \end{aligned}$$

$$\begin{aligned} 2. \quad & a + 4x = 11 \\ & 6a = 18 \\ & a = 3, x = 2 \end{aligned}$$

$$\begin{aligned} 6. \quad & 6c + z = 31 \\ & 5c = 25 \\ & c = 5, z = 1 \end{aligned}$$

$$\begin{aligned} 3. \quad & 4u + 5v = 30 \\ & 5u = 25 \\ & u = 5, v = 2 \end{aligned}$$

$$\begin{aligned} 7. \quad & 6b + 4v = 14 \\ & 5b = 5 \\ & b = 1, v = 2 \end{aligned}$$

$$\begin{aligned} 4. \quad & 2u + 5y = 15 \\ & 4u = 20 \\ & u = 5, y = 1 \end{aligned}$$

$$\begin{aligned} 8. \quad & 2x + 6z = 14 \\ & 5x = 5 \\ & x = 1, z = 2 \end{aligned}$$

Linear Systems (B)

Solve each system of equations.

1. $2b + 2z = 14$
 $6b = 18$

5. $4a + 3x = 15$
 $5a = 15$

2. $2a + 3c = 9$
 $5a = 15$

6. $4a + 6v = 34$
 $5a = 20$

3. $6c + 3v = 36$
 $5c = 20$

7. $3b + x = 4$
 $6b = 6$

4. $c + 2y = 11$
 $6c = 18$

8. $5a + 6u = 60$
 $6a = 36$

Linear Systems (B) Answers

Solve each system of equations.

1. $2b + 2z = 14$
 $6b = 18$
 $b = 3, z = 4$

5. $4a + 3x = 15$
 $5a = 15$
 $a = 3, x = 1$

2. $2a + 3c = 9$
 $5a = 15$
 $a = 3, c = 1$

6. $4a + 6v = 34$
 $5a = 20$
 $a = 4, v = 3$

3. $6c + 3v = 36$
 $5c = 20$
 $c = 4, v = 4$

7. $3b + x = 4$
 $6b = 6$
 $b = 1, x = 1$

4. $c + 2y = 11$
 $6c = 18$
 $c = 3, y = 4$

8. $5a + 6u = 60$
 $6a = 36$
 $a = 6, u = 5$

Linear Systems (C)

Solve each system of equations.

1. $4c + 2v = 20$
 $2c = 8$

5. $3a + 4u = 23$
 $3a = 3$

2. $4u + 4z = 28$
 $2u = 2$

6. $3u + 4z = 38$
 $5u = 30$

3. $4x + z = 18$
 $4x = 16$

7. $2a + 2b = 10$
 $4a = 4$

4. $2b + 2x = 14$
 $4b = 4$

8. $4u + 5y = 17$
 $2u = 6$

Linear Systems (C) Answers

Solve each system of equations.

$$\begin{aligned} 1. \quad & 4c + 2v = 20 \\ & 2c = 8 \\ & c = 4, v = 2 \end{aligned}$$

$$\begin{aligned} 5. \quad & 3a + 4u = 23 \\ & 3a = 3 \\ & a = 1, u = 5 \end{aligned}$$

$$\begin{aligned} 2. \quad & 4u + 4z = 28 \\ & 2u = 2 \\ & u = 1, z = 6 \end{aligned}$$

$$\begin{aligned} 6. \quad & 3u + 4z = 38 \\ & 5u = 30 \\ & u = 6, z = 5 \end{aligned}$$

$$\begin{aligned} 3. \quad & 4x + z = 18 \\ & 4x = 16 \\ & x = 4, z = 2 \end{aligned}$$

$$\begin{aligned} 7. \quad & 2a + 2b = 10 \\ & 4a = 4 \\ & a = 1, b = 4 \end{aligned}$$

$$\begin{aligned} 4. \quad & 2b + 2x = 14 \\ & 4b = 4 \\ & b = 1, x = 6 \end{aligned}$$

$$\begin{aligned} 8. \quad & 4u + 5y = 17 \\ & 2u = 6 \\ & u = 3, y = 1 \end{aligned}$$

Linear Systems (D)

Solve each system of equations.

1. $4c + 2v = 28$
 $6c = 36$

5. $2c + 3y = 15$
 $c = 6$

2. $y + 4z = 10$
 $6y = 36$

6. $3b + 4u = 14$
 $6b = 12$

3. $6a + b = 40$
 $4a = 24$

7. $4c + 2u = 28$
 $4c = 24$

4. $4x + 2y = 22$
 $2x = 6$

8. $5v + 3y = 42$
 $2v = 12$

Linear Systems (D) Answers

Solve each system of equations.

$$\begin{aligned} 1. \quad & 4c + 2v = 28 \\ & 6c = 36 \\ & c = 6, v = 2 \end{aligned}$$

$$\begin{aligned} 5. \quad & 2c + 3y = 15 \\ & c = 6 \\ & c = 6, y = 1 \end{aligned}$$

$$\begin{aligned} 2. \quad & y + 4z = 10 \\ & 6y = 36 \\ & y = 6, z = 1 \end{aligned}$$

$$\begin{aligned} 6. \quad & 3b + 4u = 14 \\ & 6b = 12 \\ & b = 2, u = 2 \end{aligned}$$

$$\begin{aligned} 3. \quad & 6a + b = 40 \\ & 4a = 24 \\ & a = 6, b = 4 \end{aligned}$$

$$\begin{aligned} 7. \quad & 4c + 2u = 28 \\ & 4c = 24 \\ & c = 6, u = 2 \end{aligned}$$

$$\begin{aligned} 4. \quad & 4x + 2y = 22 \\ & 2x = 6 \\ & x = 3, y = 5 \end{aligned}$$

$$\begin{aligned} 8. \quad & 5v + 3y = 42 \\ & 2v = 12 \\ & v = 6, y = 4 \end{aligned}$$

Linear Systems (E)

Solve each system of equations.

1. $5u + x = 21$
 $u = 3$

5. $4y + z = 26$
 $6y = 36$

2. $2u + 3y = 17$
 $u = 1$

6. $5b + 6v = 35$
 $4b = 4$

3. $6b + 4c = 22$
 $6b = 18$

7. $6b + u = 13$
 $6b = 12$

4. $5b + 4u = 46$
 $b = 6$

8. $3v + 2z = 19$
 $6v = 18$

Linear Systems (E) Answers

Solve each system of equations.

1. $5u + x = 21$
 $u = 3$
 $u = 3, x = 6$

5. $4y + z = 26$
 $6y = 36$
 $y = 6, z = 2$

2. $2u + 3y = 17$
 $u = 1$
 $u = 1, y = 5$

6. $5b + 6v = 35$
 $4b = 4$
 $b = 1, v = 5$

3. $6b + 4c = 22$
 $6b = 18$
 $b = 3, c = 1$

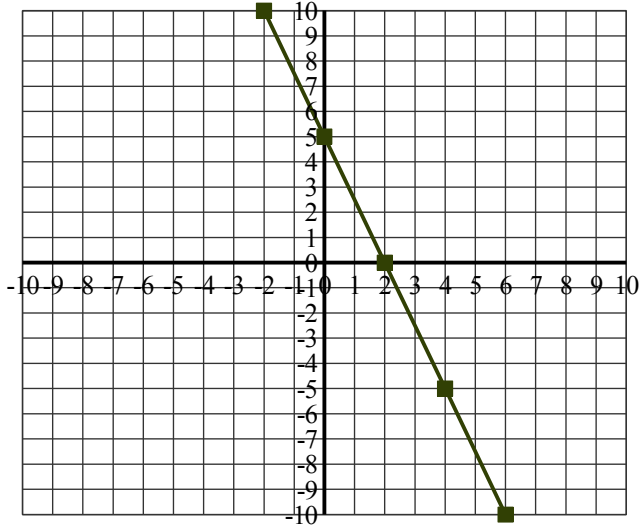
7. $6b + u = 13$
 $6b = 12$
 $b = 2, u = 1$

4. $5b + 4u = 46$
 $b = 6$
 $b = 6, u = 4$

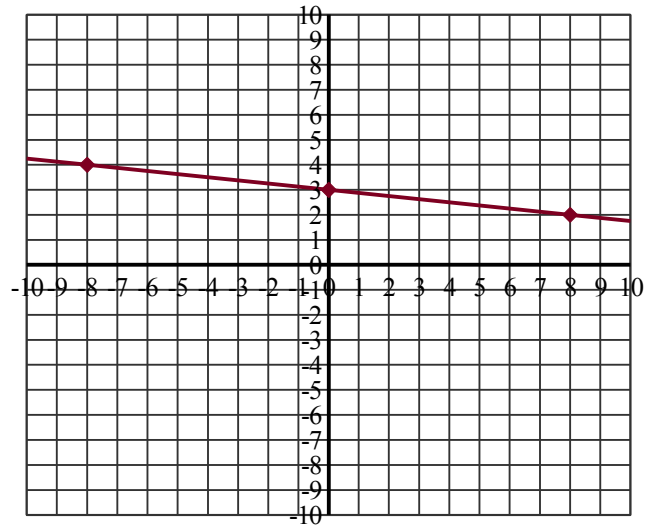
8. $3v + 2z = 19$
 $6v = 18$
 $v = 3, z = 5$

Linear Equation Graphs (A)

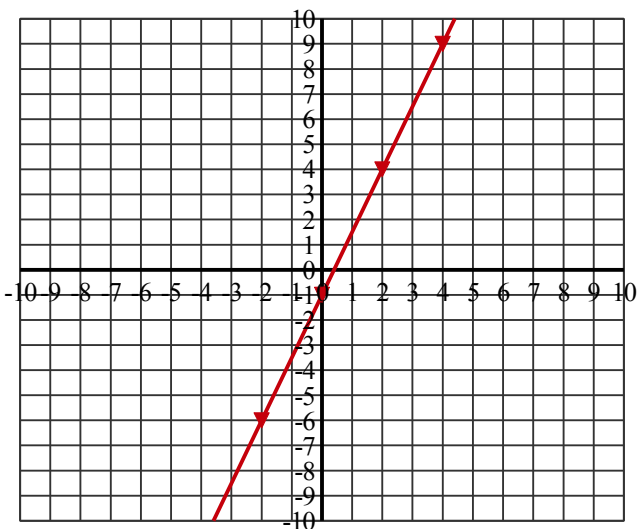
Find the slope, y-intercept, x-intercept, equation for each line.



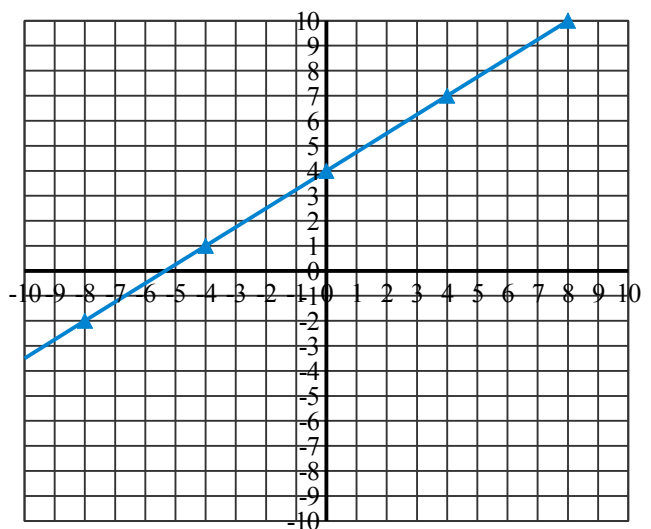
slope:
y-intercept:
x-intercept:
equation:



slope:
y-intercept:
x-intercept:
equation:



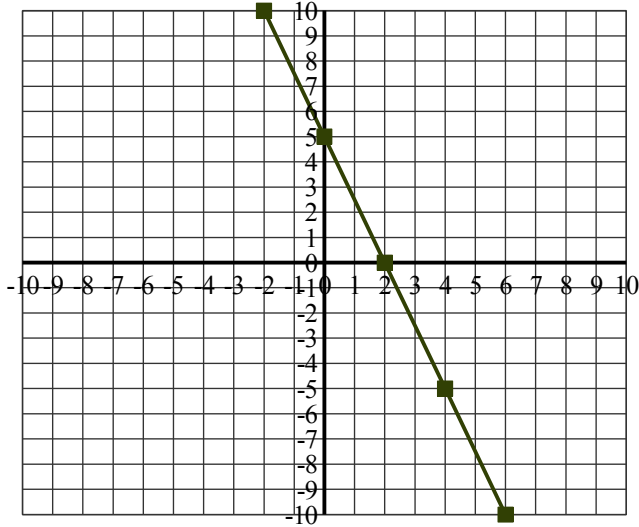
slope:
y-intercept:
x-intercept:
equation:



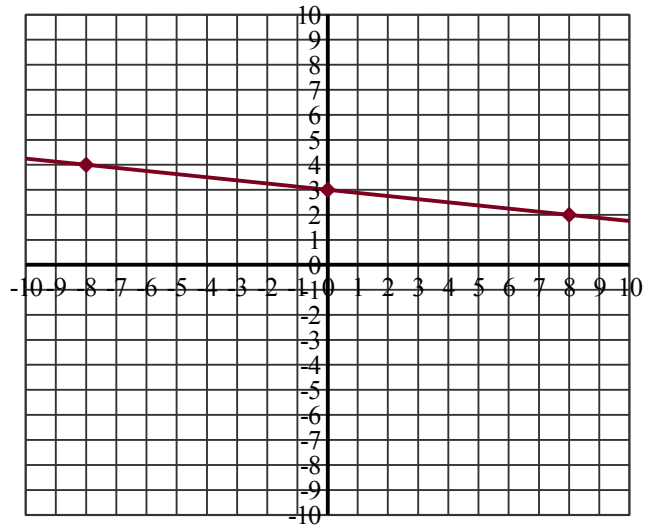
slope:
y-intercept:
x-intercept:
equation:

Linear Equation Graphs (A) Answers

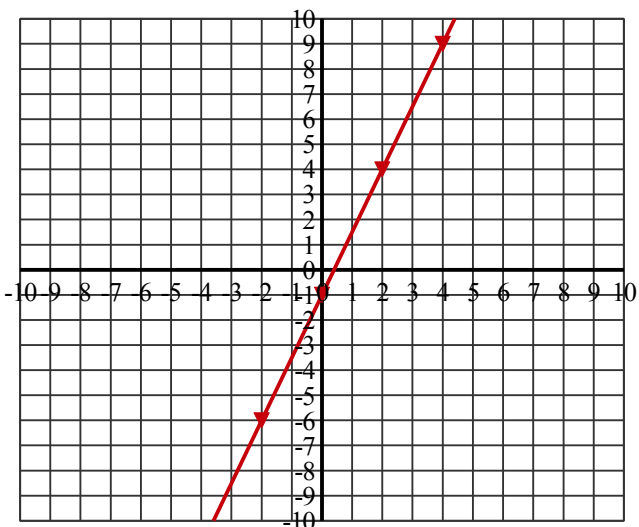
Find the slope, y-intercept, x-intercept, equation for each line.



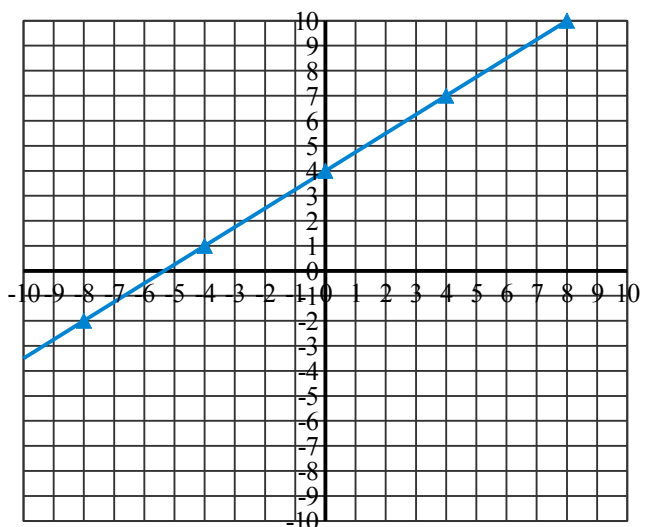
slope: $-5/2$
y-intercept: 5
x-intercept: 2
equation: $y = (-5/2)x + 5$



slope: $-1/8$
y-intercept: 3
x-intercept: 24
equation: $y = (-1/8)x + 3$



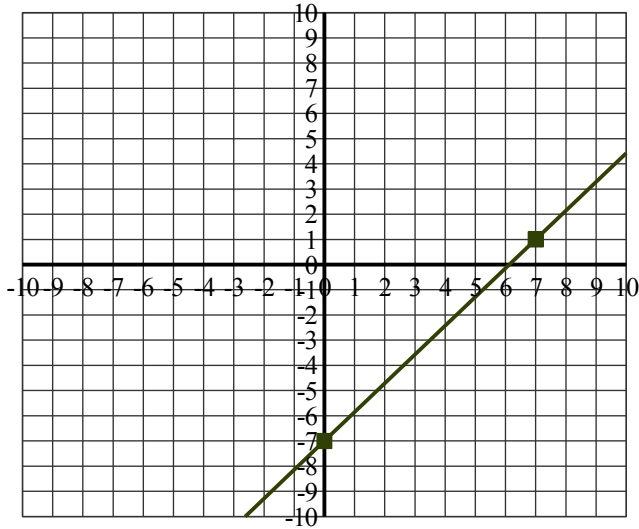
slope: $5/2$
y-intercept: -1
x-intercept: 0.4
equation: $y = (5/2)x - 1$



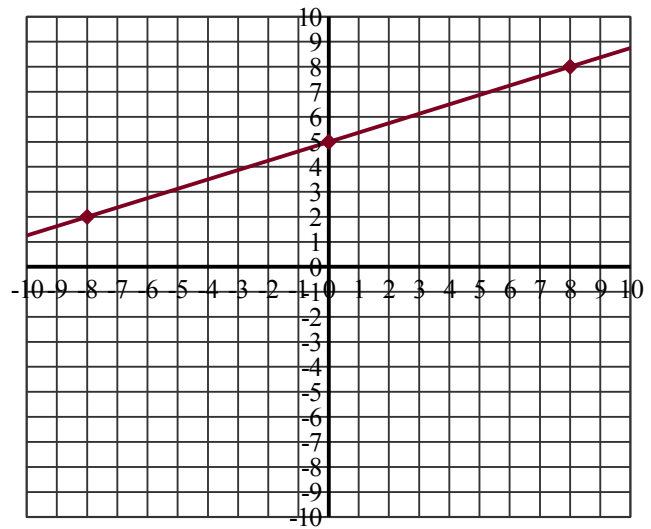
slope: $3/4$
y-intercept: 4
x-intercept: -5.33333
equation: $y = (3/4)x + 4$

Linear Equation Graphs (B)

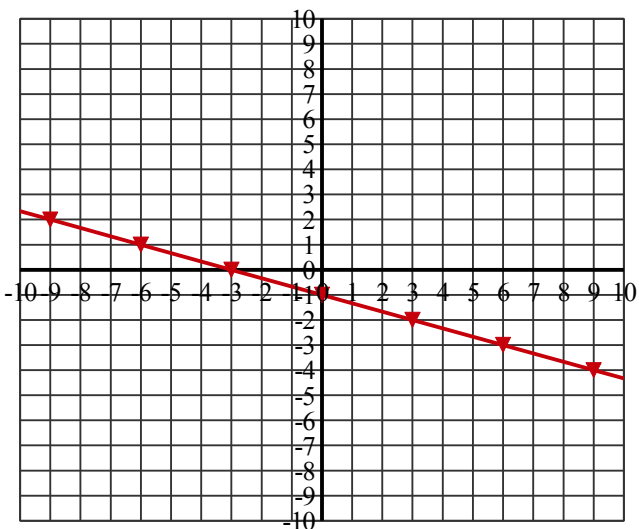
Find the slope, y-intercept, x-intercept, equation for each line.



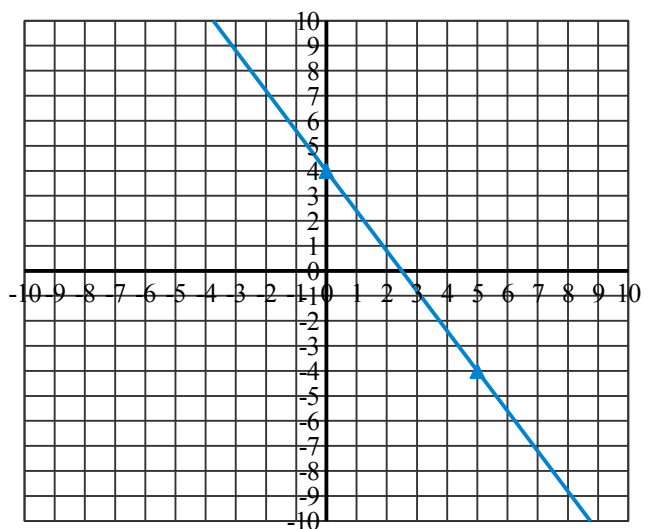
slope:
y-intercept:
x-intercept:
equation:



slope:
y-intercept:
x-intercept:
equation:



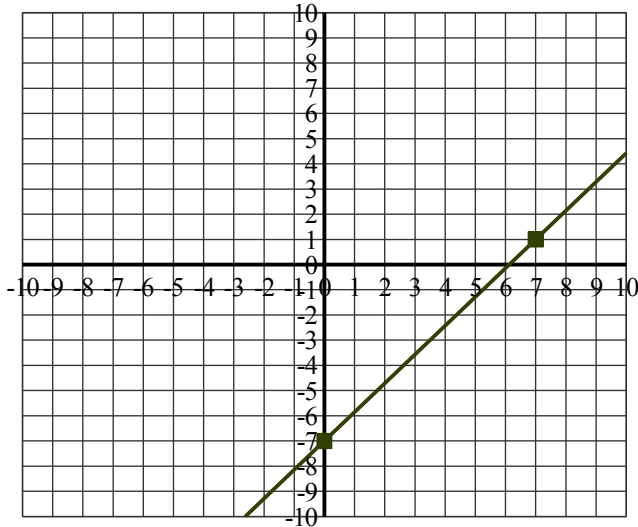
slope:
y-intercept:
x-intercept:
equation:



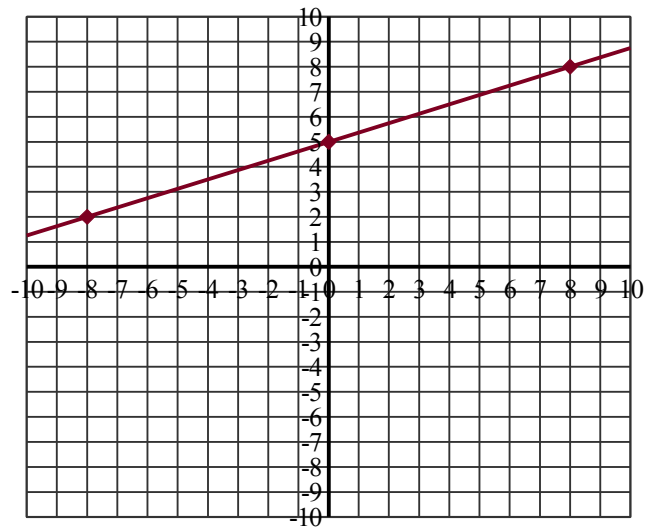
slope:
y-intercept:
x-intercept:
equation:

Linear Equation Graphs (B) Answers

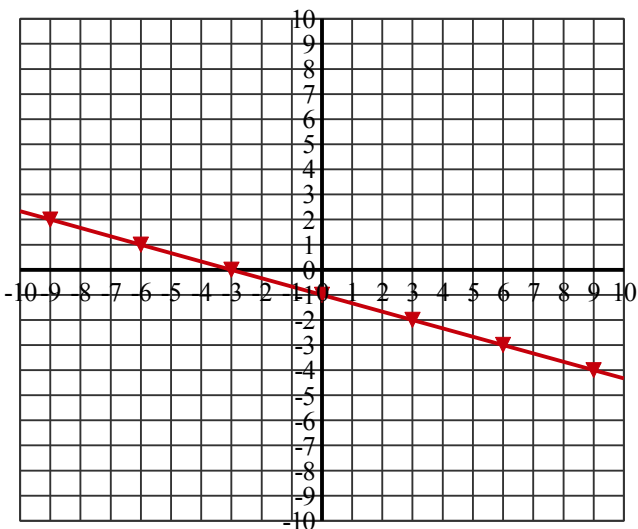
Find the slope, y-intercept, x-intercept, equation for each line.



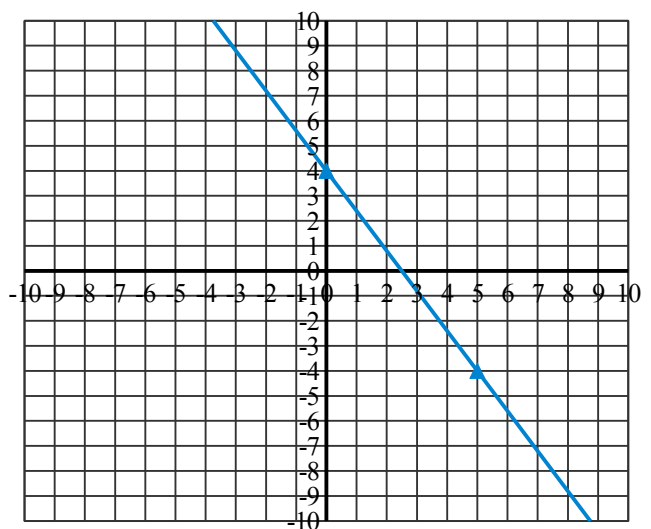
slope: $8/7$
y-intercept: -7
x-intercept: 6.125
equation: $y = (8/7)x - 7$



slope: $3/8$
y-intercept: 5
x-intercept: -13.3333
equation: $y = (3/8)x + 5$



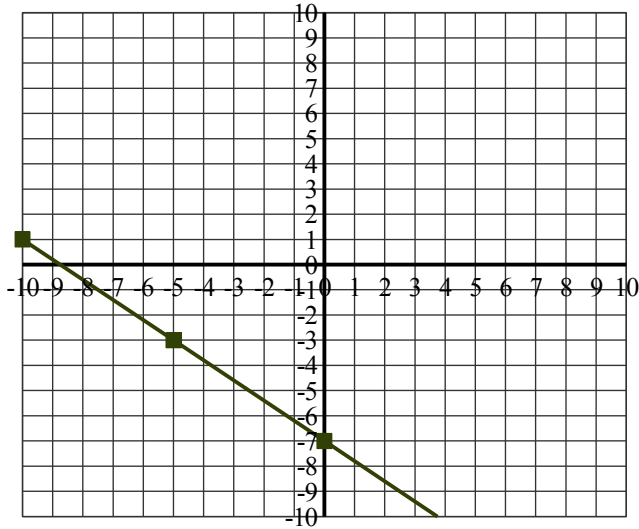
slope: $-1/3$
y-intercept: -1
x-intercept: -3
equation: $y = (-1/3)x - 1$



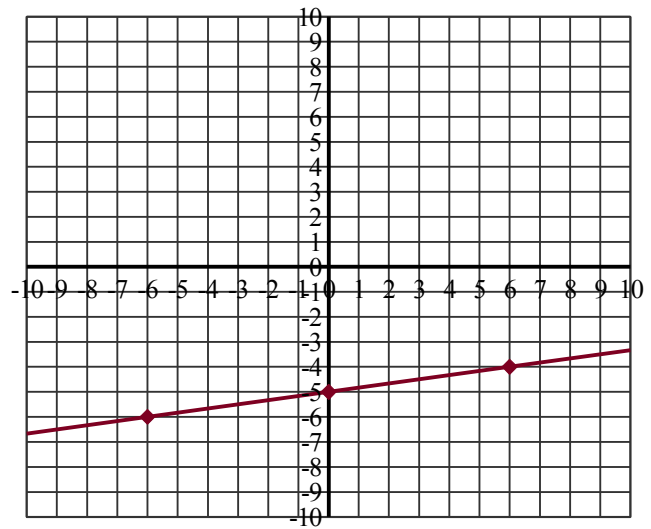
slope: $-8/5$
y-intercept: 4
x-intercept: 2.5
equation: $y = (-8/5)x + 4$

Linear Equation Graphs (C)

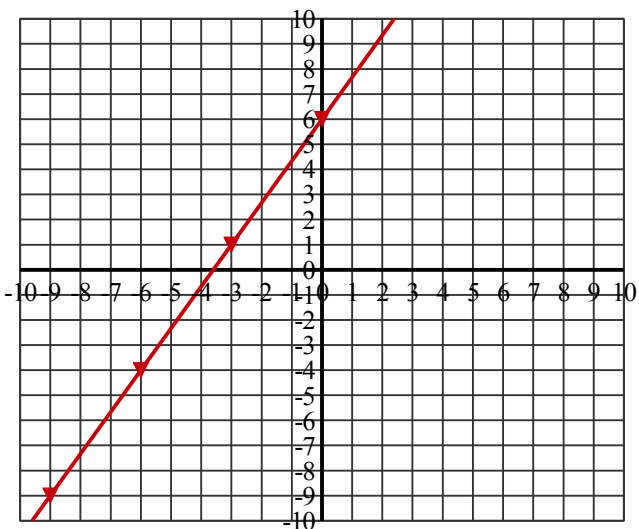
Find the slope, y-intercept, x-intercept, equation for each line.



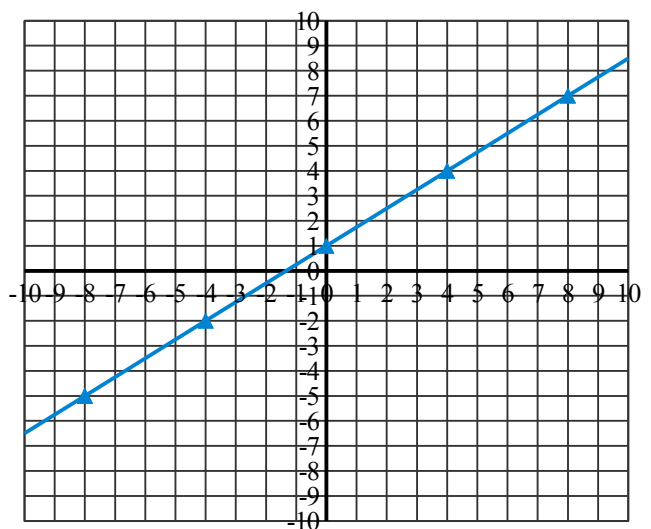
slope:
y-intercept:
x-intercept:
equation:



slope:
y-intercept:
x-intercept:
equation:



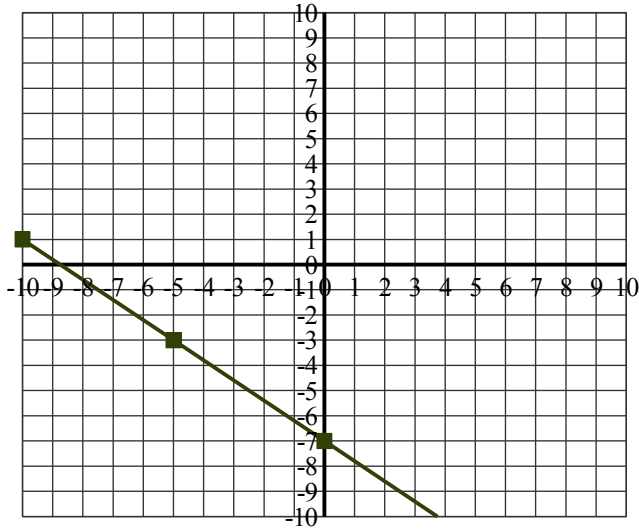
slope:
y-intercept:
x-intercept:
equation:



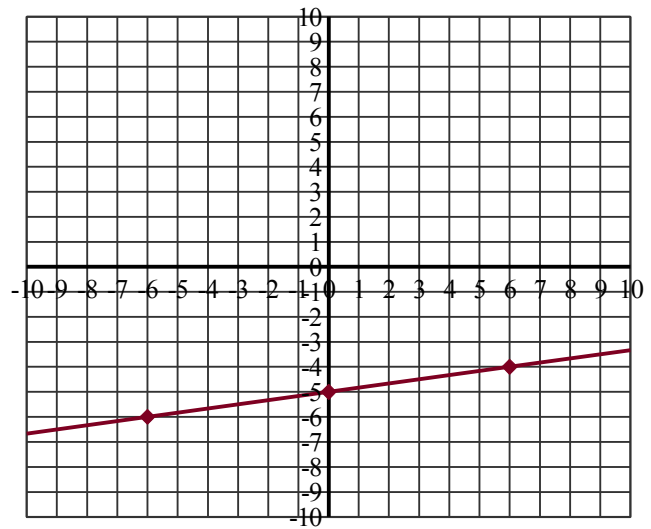
slope:
y-intercept:
x-intercept:
equation:

Linear Equation Graphs (C) Answers

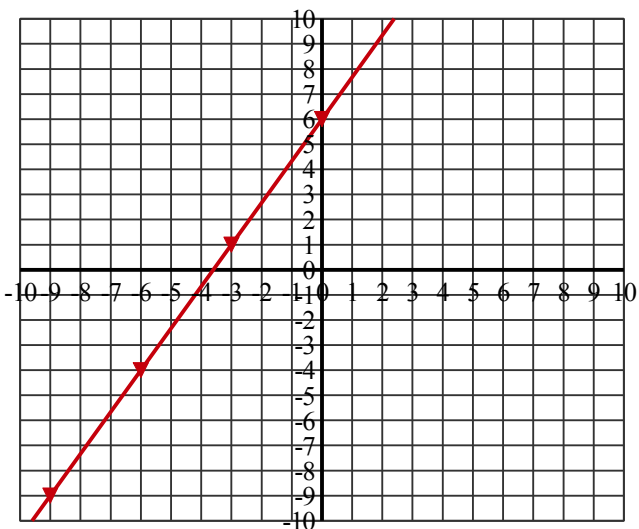
Find the slope, y-intercept, x-intercept, equation for each line.



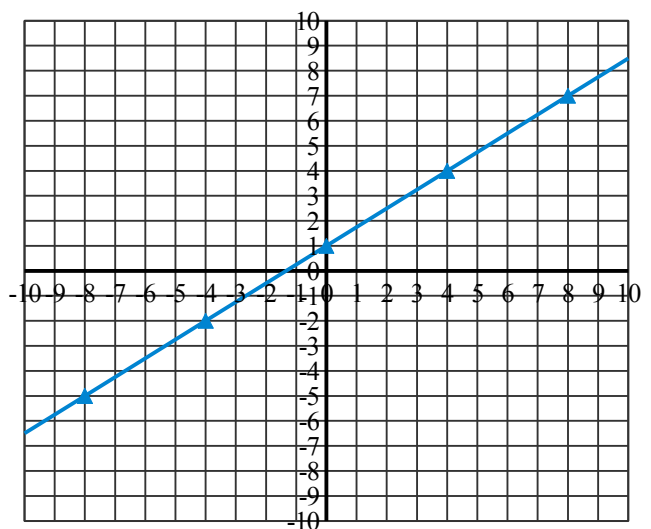
slope: $-4/5$
y-intercept: -7
x-intercept: -8.75
equation: $y = (-4/5)x - 7$



slope: $1/6$
y-intercept: -5
x-intercept: 30
equation: $y = (1/6)x - 5$



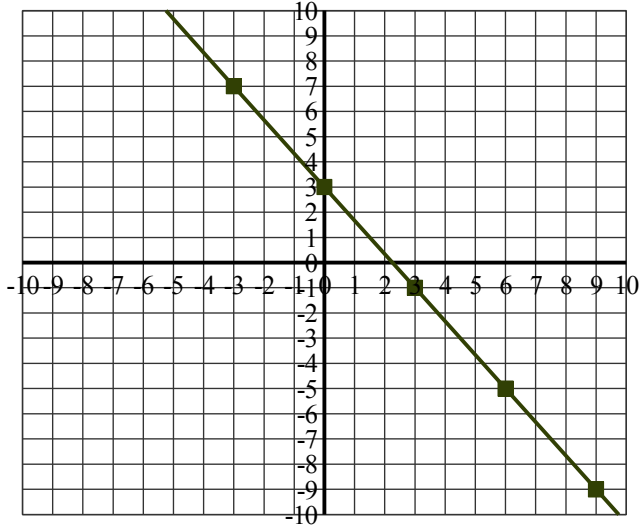
slope: $5/3$
y-intercept: 6
x-intercept: -3.6
equation: $y = (5/3)x + 6$



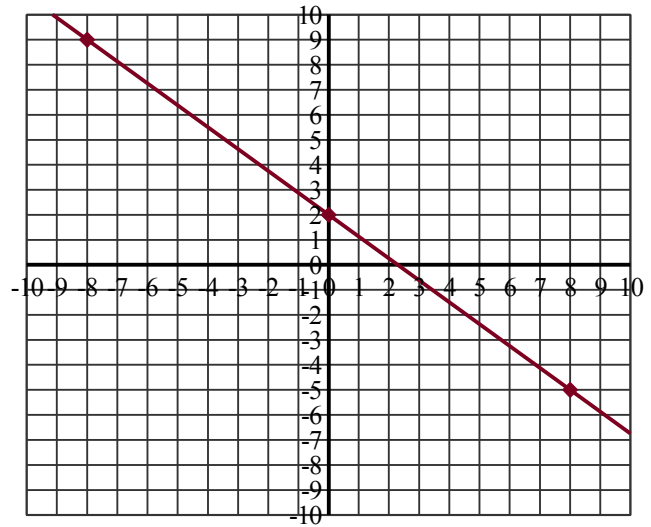
slope: $3/4$
y-intercept: 1
x-intercept: -1.33333
equation: $y = (3/4)x + 1$

Linear Equation Graphs (D)

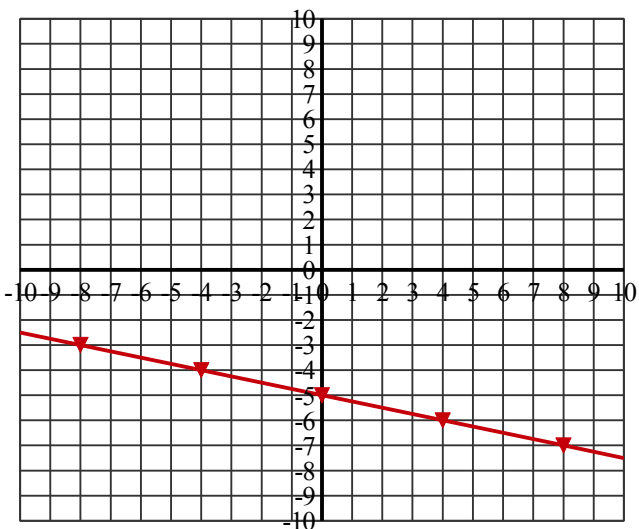
Find the slope, y-intercept, x-intercept, equation for each line.



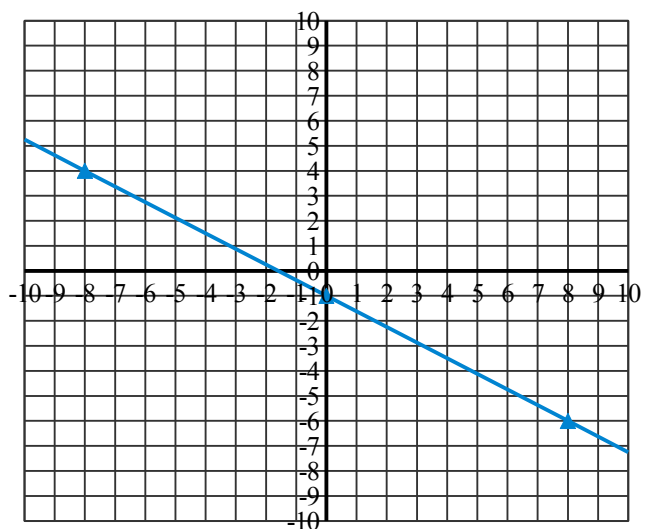
slope:
y-intercept:
x-intercept:
equation:



slope:
y-intercept:
x-intercept:
equation:



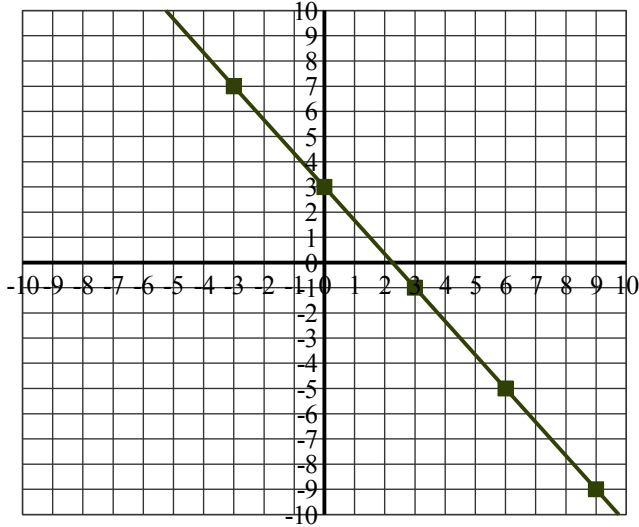
slope:
y-intercept:
x-intercept:
equation:



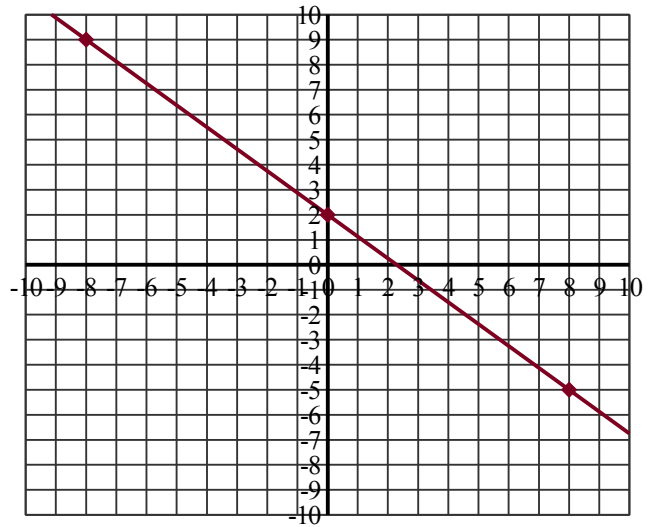
slope:
y-intercept:
x-intercept:
equation:

Linear Equation Graphs (D) Answers

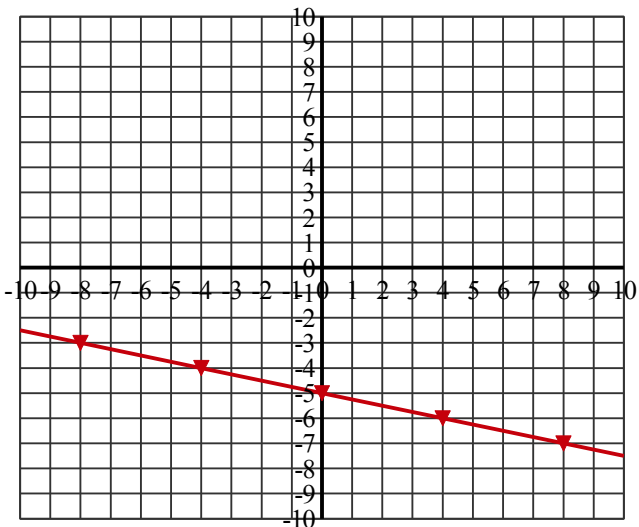
Find the slope, y-intercept, x-intercept, equation for each line.



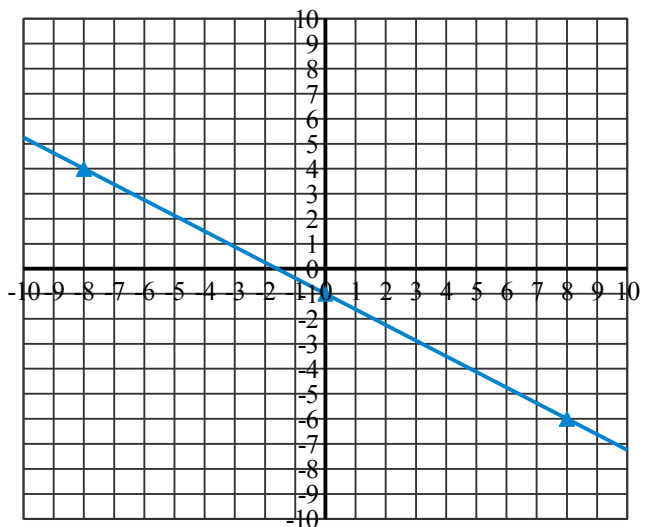
slope: $-4/3$
y-intercept: 3
x-intercept: 2.25
equation: $y = (-4/3)x + 3$



slope: $-7/8$
y-intercept: 2
x-intercept: 2.285714
equation: $y = (-7/8)x + 2$



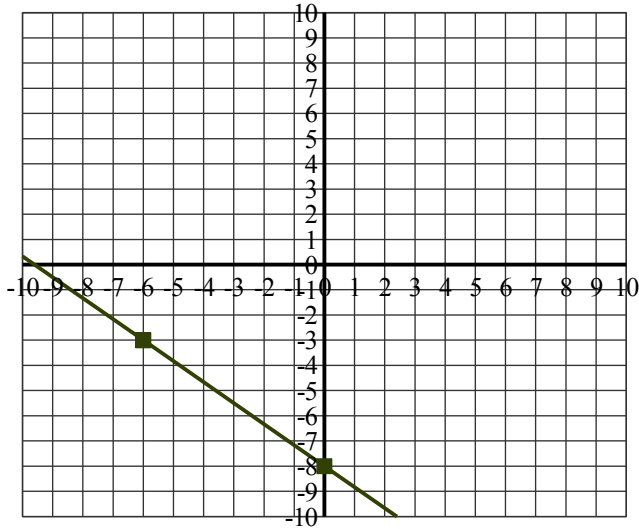
slope: $-1/4$
y-intercept: -5
x-intercept: -20
equation: $y = (-1/4)x - 5$



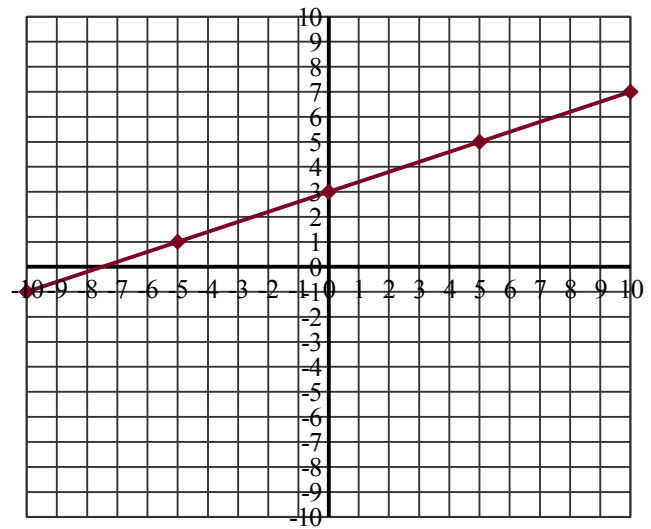
slope: $-5/8$
y-intercept: -1
x-intercept: -1.6
equation: $y = (-5/8)x - 1$

Linear Equation Graphs (E)

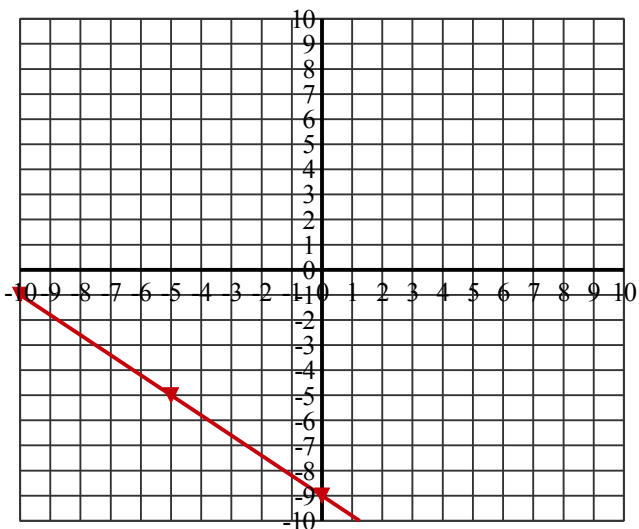
Find the slope, y-intercept, x-intercept, equation for each line.



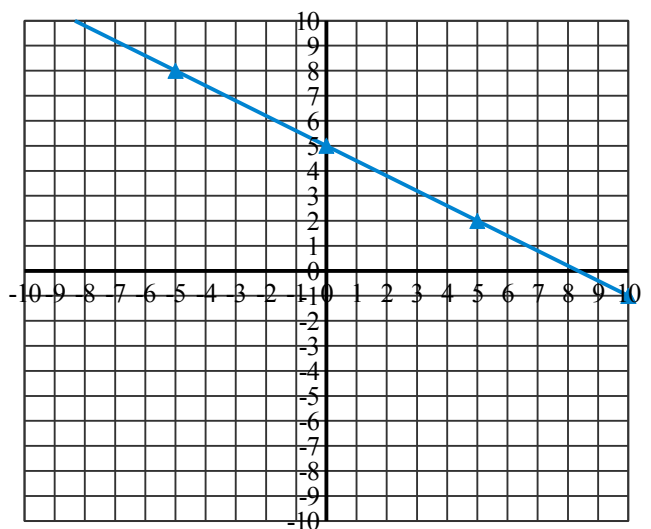
slope:
y-intercept:
x-intercept:
equation:



slope:
y-intercept:
x-intercept:
equation:



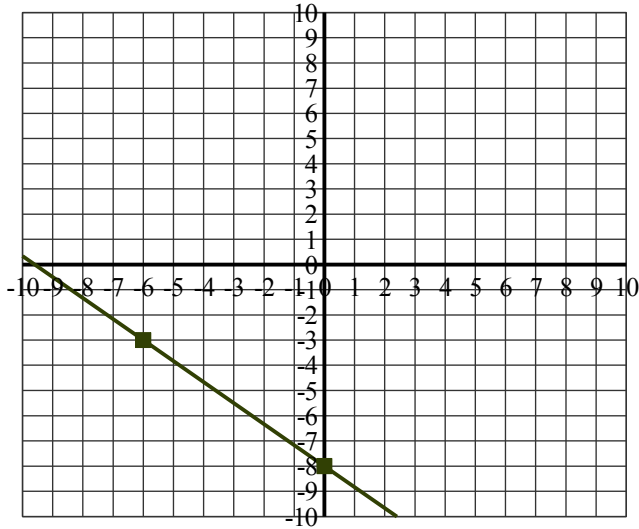
slope:
y-intercept:
x-intercept:
equation:



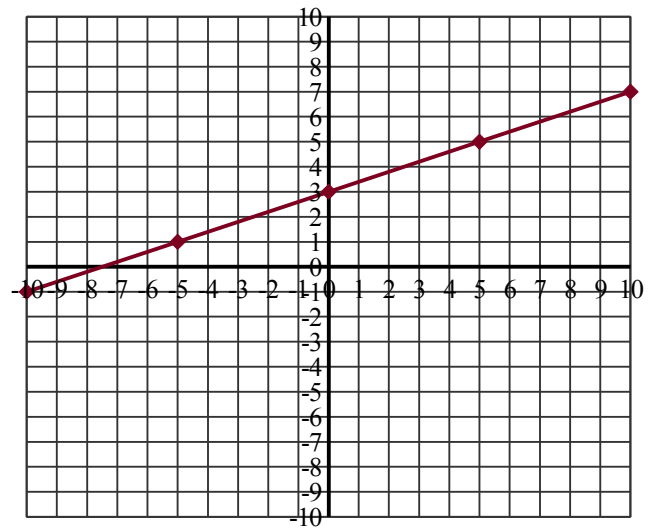
slope:
y-intercept:
x-intercept:
equation:

Linear Equation Graphs (E) Answers

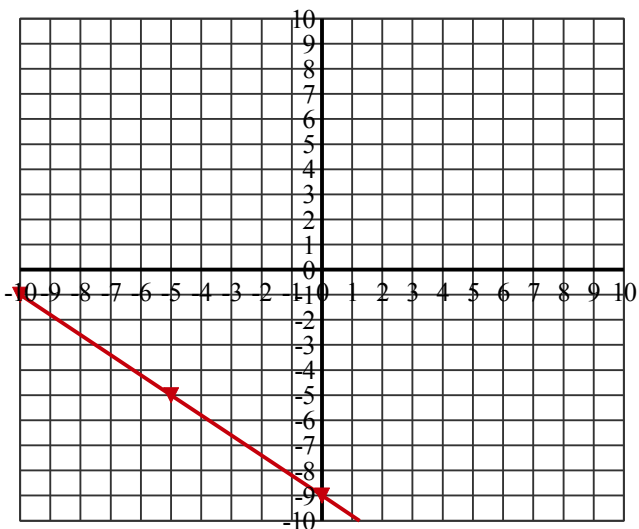
Find the slope, y-intercept, x-intercept, equation for each line.



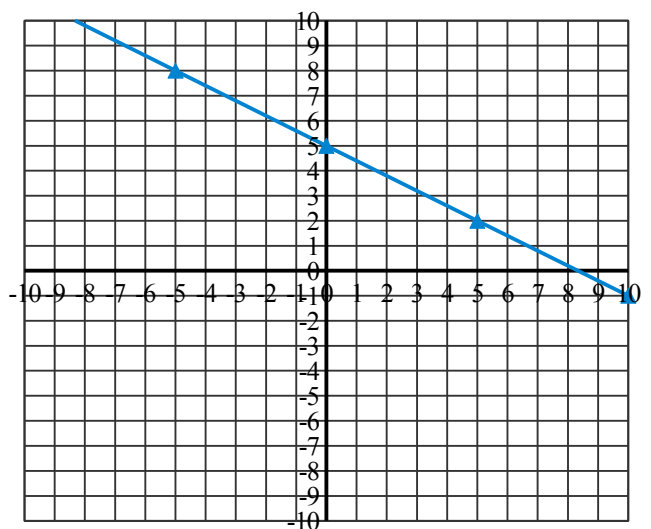
slope: $-\frac{5}{6}$
y-intercept: -8
x-intercept: -9.6
equation: $y = (-\frac{5}{6})x - 8$



slope: $\frac{2}{5}$
y-intercept: 3
x-intercept: -7.5
equation: $y = (\frac{2}{5})x + 3$



slope: $-\frac{4}{5}$
y-intercept: -9
x-intercept: -11.25
equation: $y = (-\frac{4}{5})x - 9$

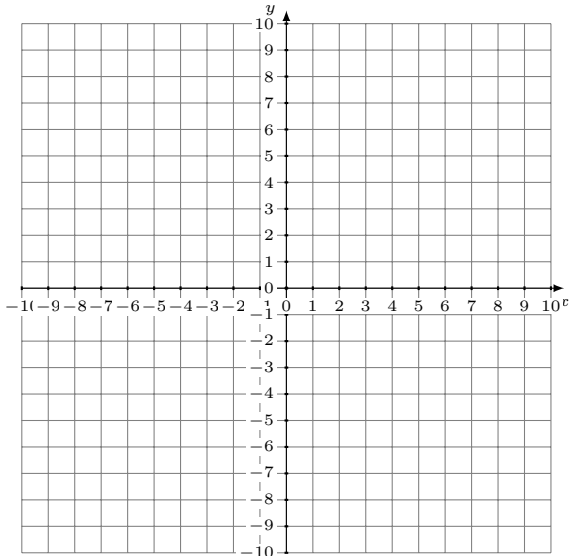


slope: $-\frac{3}{5}$
y-intercept: 5
x-intercept: 8.333333
equation: $y = (-\frac{3}{5})x + 5$

Graphing Linear Systems (A)

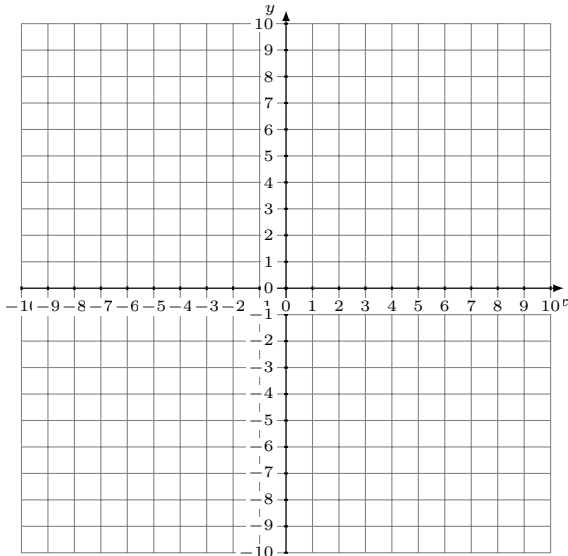
Graph each system and identify its solution.

1. $x + 4y = 8$
 $y = \frac{3}{4}x + 6$



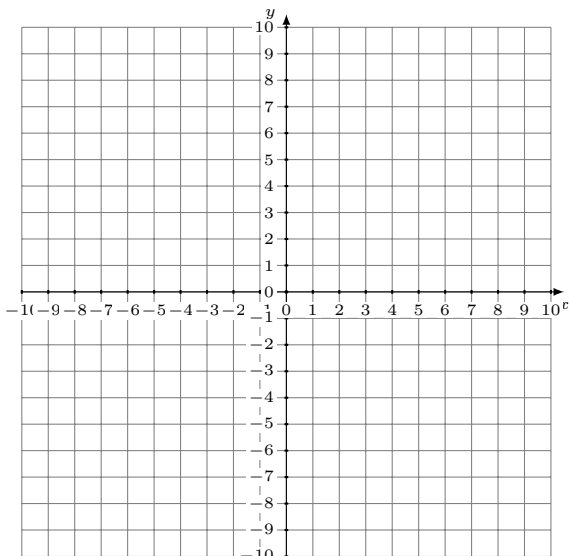
Solution: (----,----)

2. $8x - y = 6$
 $y = 6x - 4$



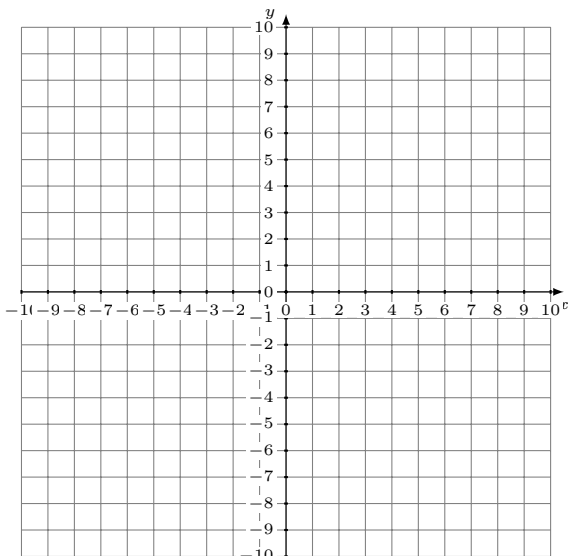
Solution: (----,----)

3. $y = 2x + 8$
 $x + 2y = -14$



Solution: (----,----)

4. $7x + 8y = 64$
 $x + 4y = 12$

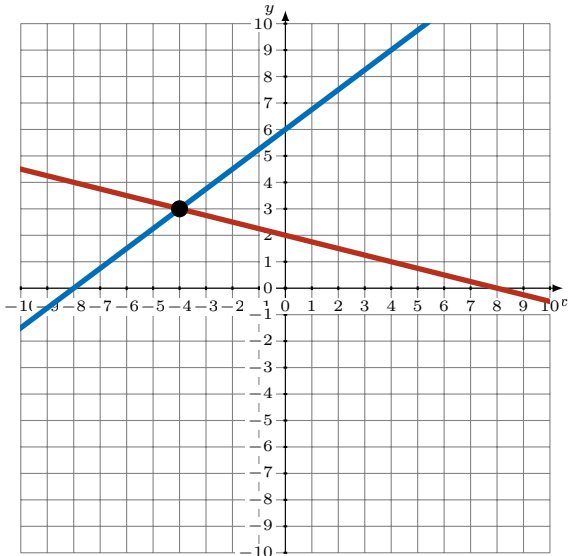


Solution: (----,----)

Graphing Linear Systems (A) Answers

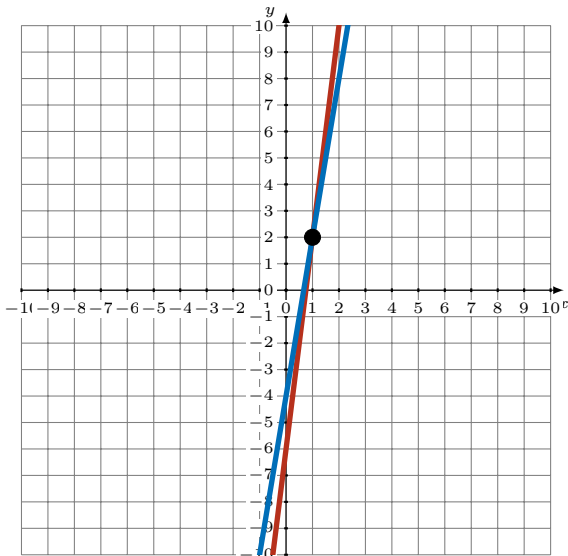
Graph each system and identify its solution.

1. $x + 4y = 8$
 $y = \frac{3}{4}x + 6$



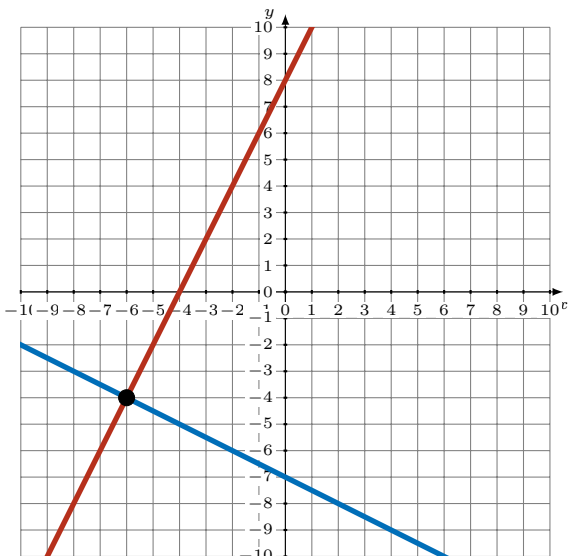
Solution: $(-4, 3)$

2. $8x - y = 6$
 $y = 6x - 4$



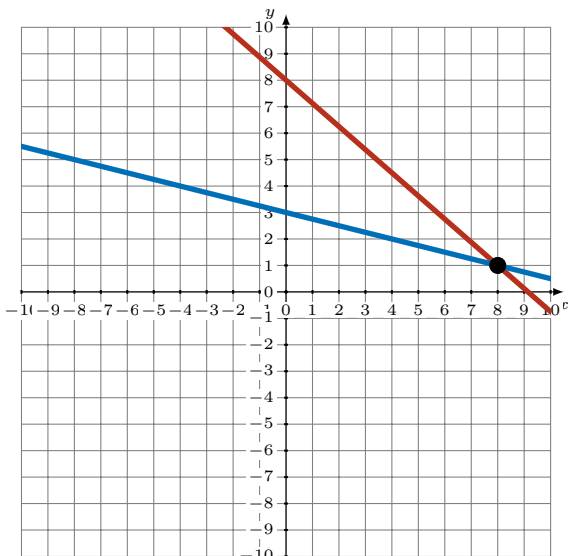
Solution: $(1, 2)$

3. $y = 2x + 8$
 $x + 2y = -14$



Solution: $(-6, -4)$

4. $7x + 8y = 64$
 $x + 4y = 12$

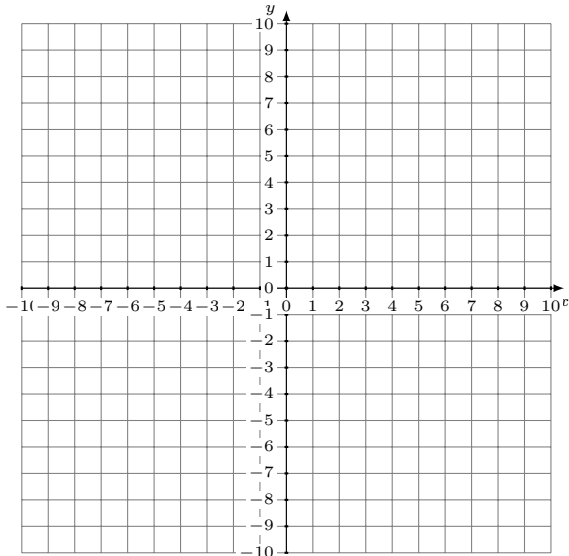


Solution: $(8, 1)$

Graphing Linear Systems (B)

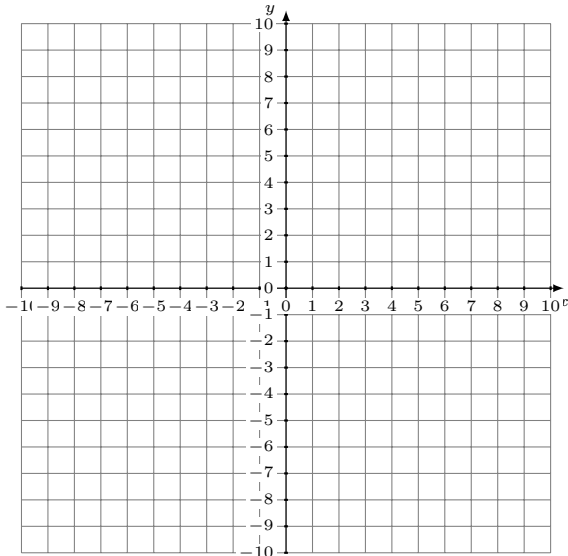
Graph each system and identify its solution.

1. $x + y = 6$
 $y = \frac{1}{7}x - 2$



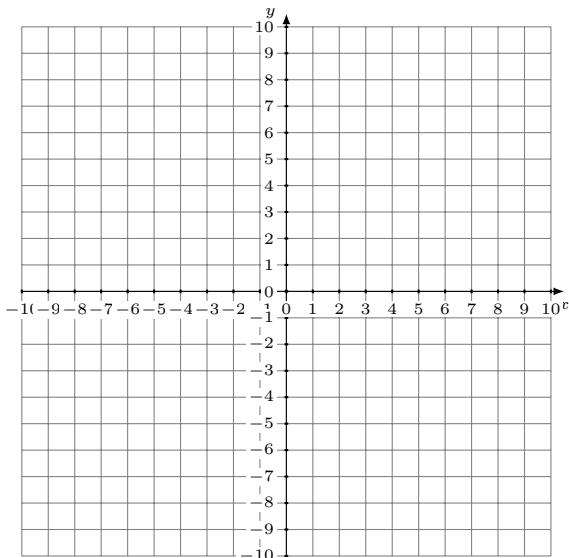
Solution: (____,____)

2. $y = -3x + 7$
 $y = -2$



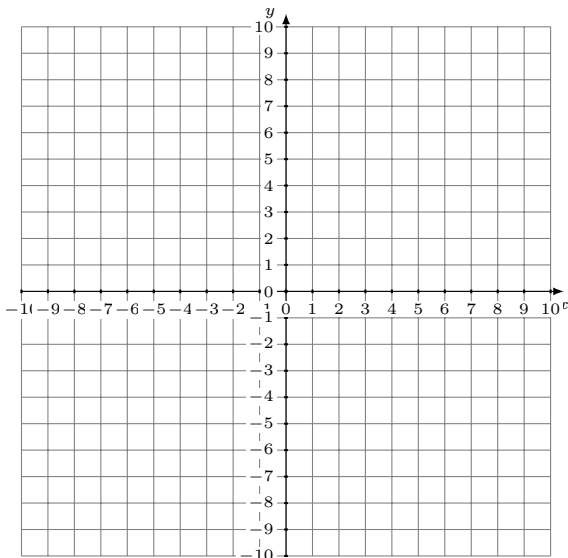
Solution: (____,____)

3. $y = -\frac{5}{3}x + 1$
 $y = 6$



Solution: (____,____)

4. $5x - 9y = -36$
 $8x - 9y = -9$

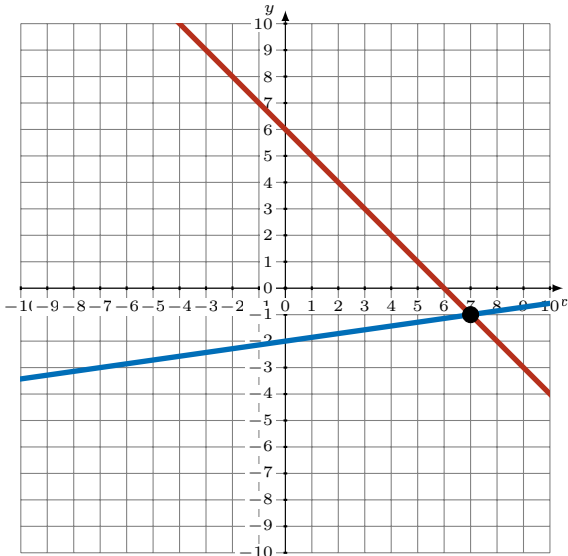


Solution: (____,____)

Graphing Linear Systems (B) Answers

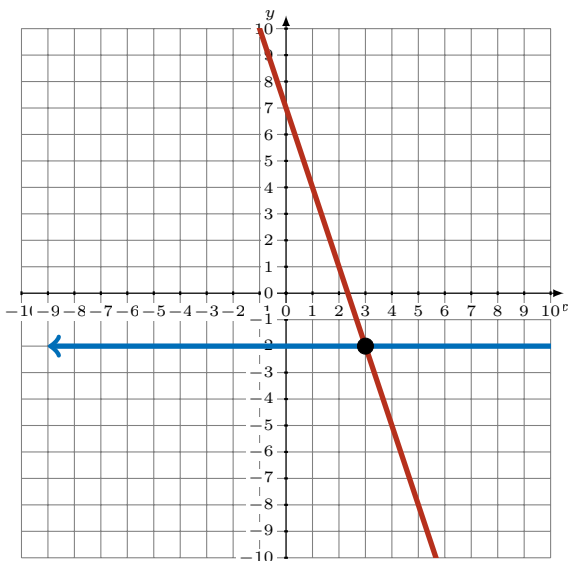
Graph each system and identify its solution.

1. $x + y = 6$
 $y = \frac{1}{7}x - 2$



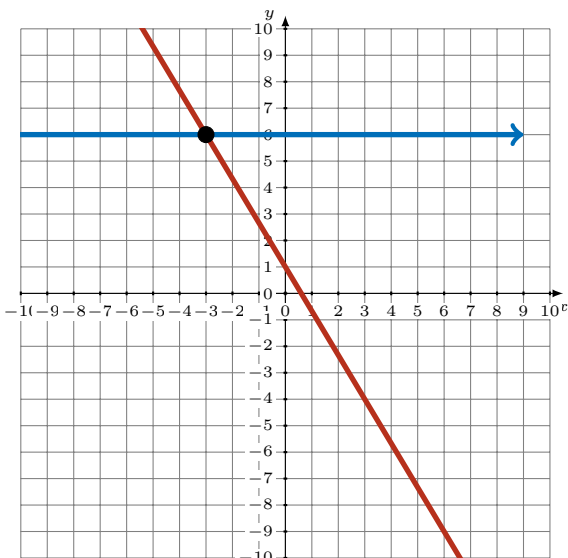
Solution: (7,-1)

2. $y = -3x + 7$
 $y = -2$



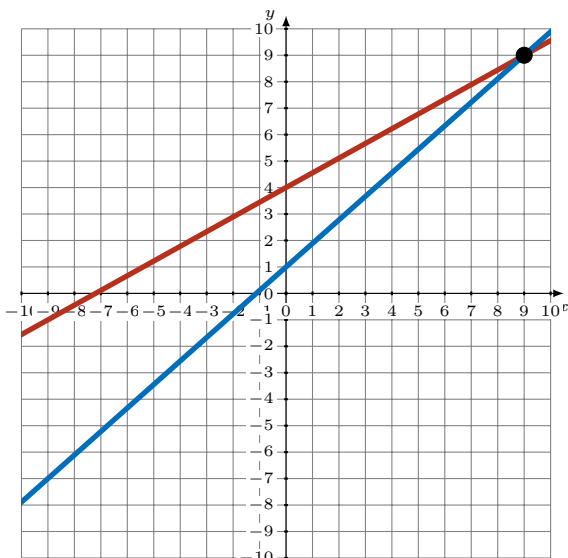
Solution: (3,-2)

3. $y = -\frac{5}{3}x + 1$
 $y = 6$



Solution: (-3,6)

4. $5x - 9y = -36$
 $8x - 9y = -9$

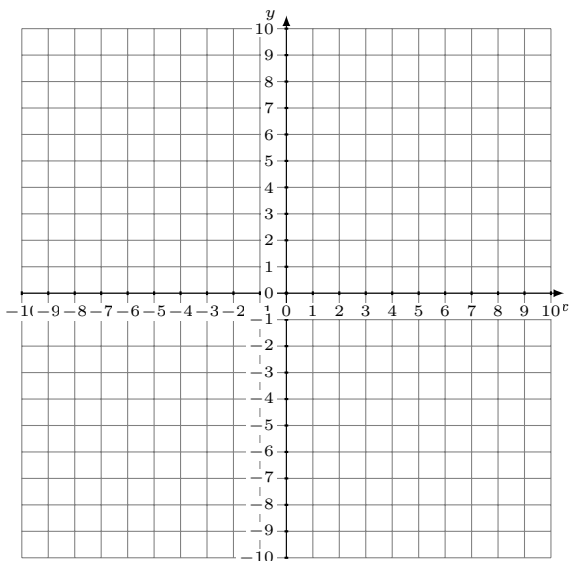


Solution: (9,9)

Graphing Linear Systems (C)

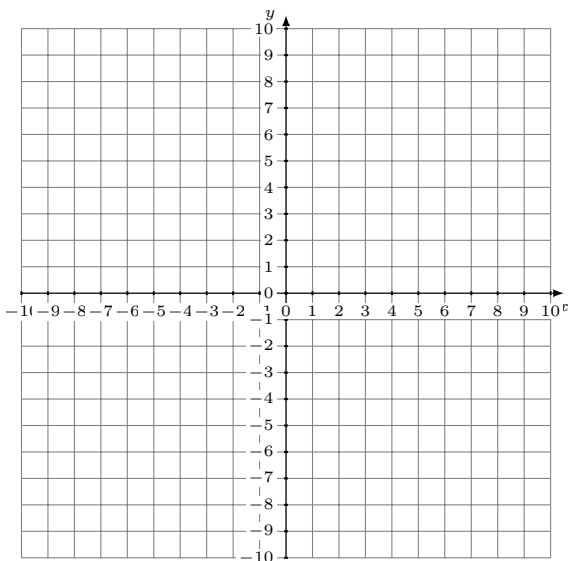
Graph each system and identify its solution.

1. $7x + 3y = -12$
 $2x - 3y = -15$



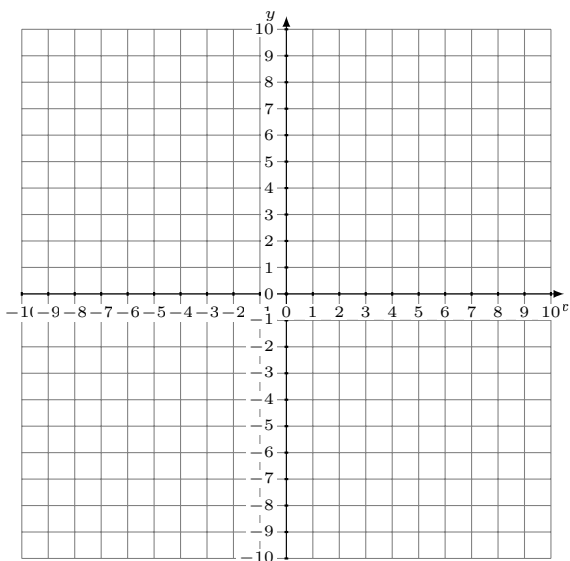
Solution: (----,----)

2. $3x + 4y = 8$
 $y = \frac{1}{4}x - 6$



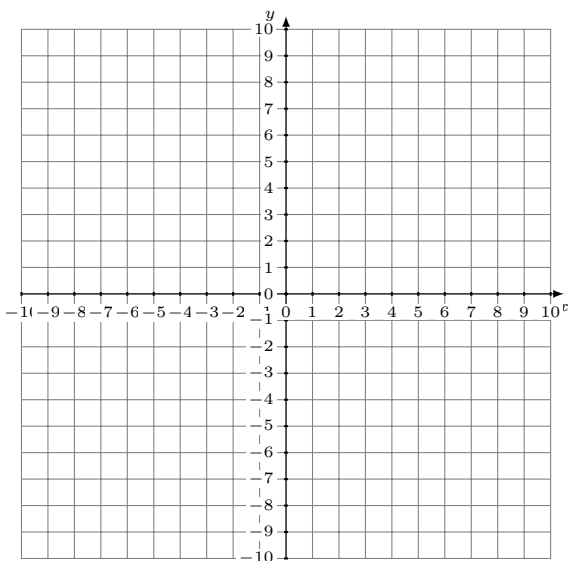
Solution: (----,----)

3. $10x - y = 4$
 $y = 6x$



Solution: (----,----)

4. $y = 2x - 2$
 $y = \frac{1}{3}x - 7$

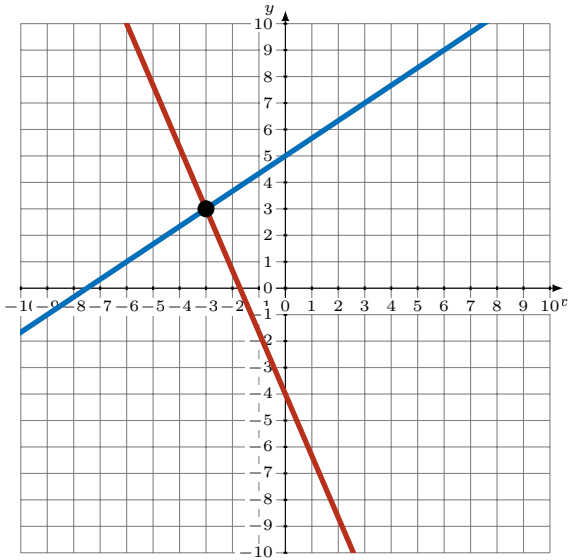


Solution: (----,----)

Graphing Linear Systems (C) Answers

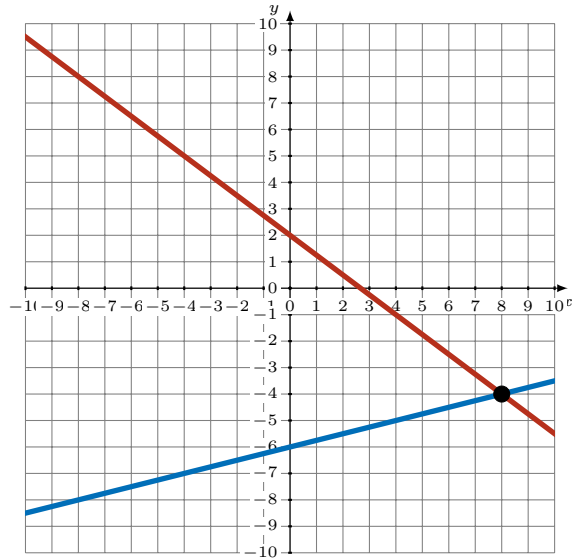
Graph each system and identify its solution.

1. $7x + 3y = -12$
 $2x - 3y = -15$



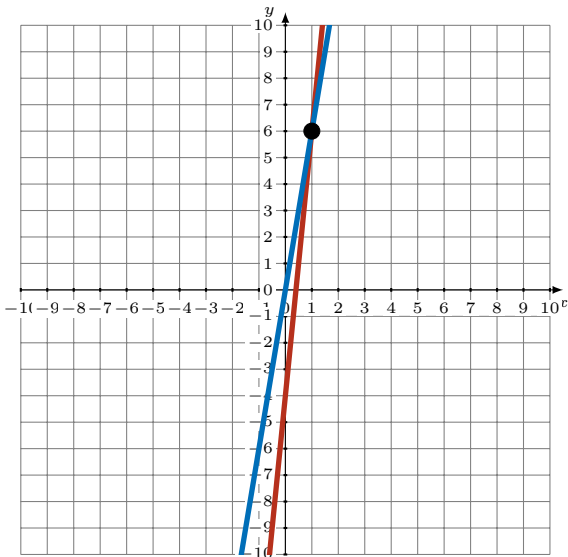
Solution: $(-3, 3)$

2. $3x + 4y = 8$
 $y = \frac{1}{4}x - 6$



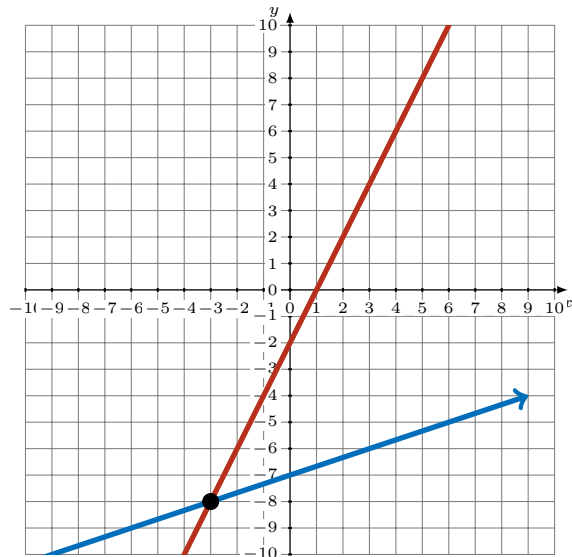
Solution: $(8, -4)$

3. $10x - y = 4$
 $y = 6x$



Solution: $(1, 6)$

4. $y = 2x - 2$
 $y = \frac{1}{3}x - 7$

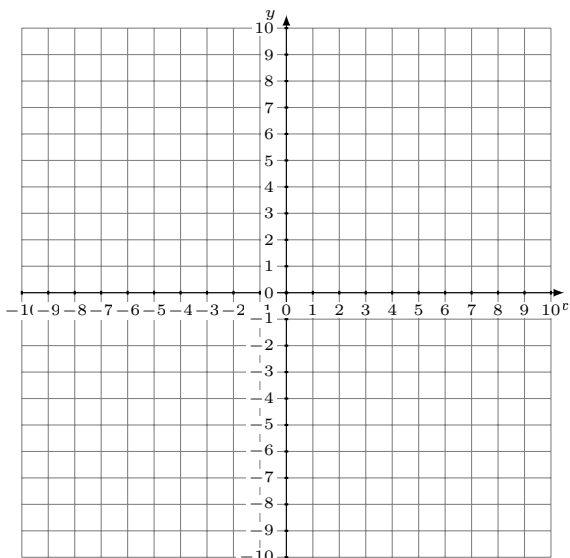


Solution: $(-3, -8)$

Graphing Linear Systems (D)

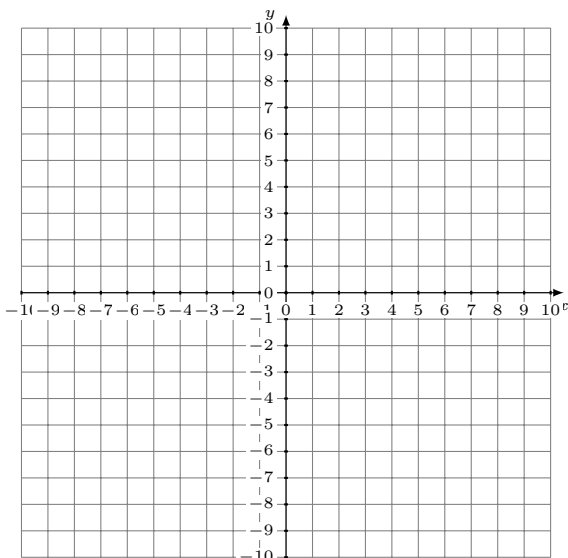
Graph each system and identify its solution.

1. $y = \frac{11}{9}x + 8$
 $8x - 9y = -45$



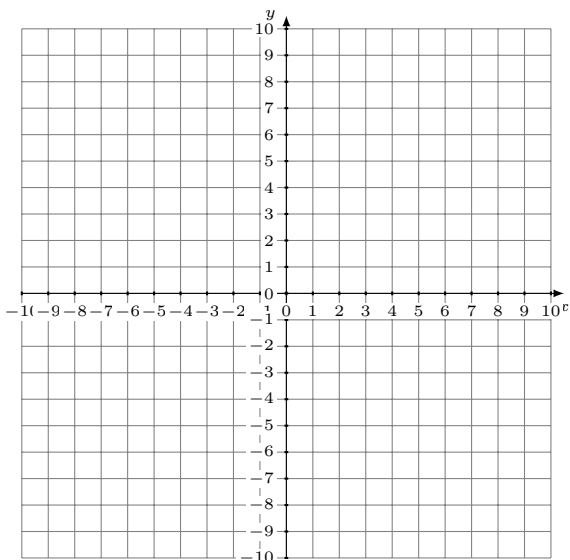
Solution: (----,----)

2. $x + 4y = 24$
 $5x - 4y = 0$



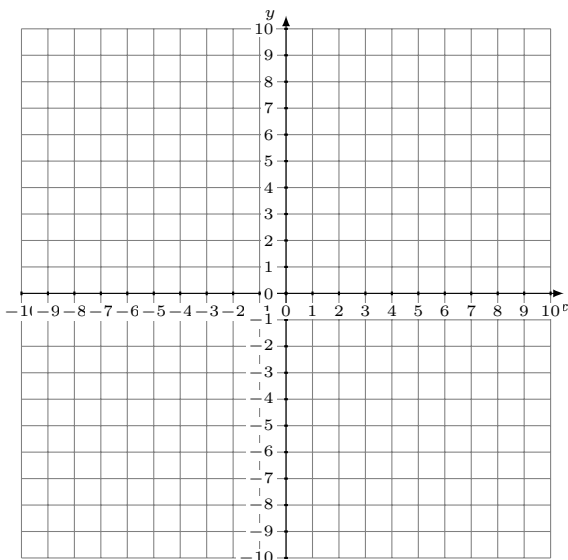
Solution: (----,----)

3. $4x - y = -4$
 $9x - y = 1$



Solution: (----,----)

4. $y = 5$
 $5x - 2y = 0$

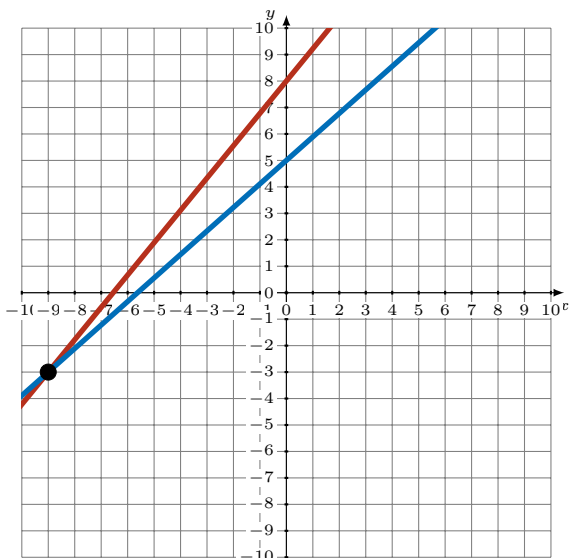


Solution: (----,----)

Graphing Linear Systems (D) Answers

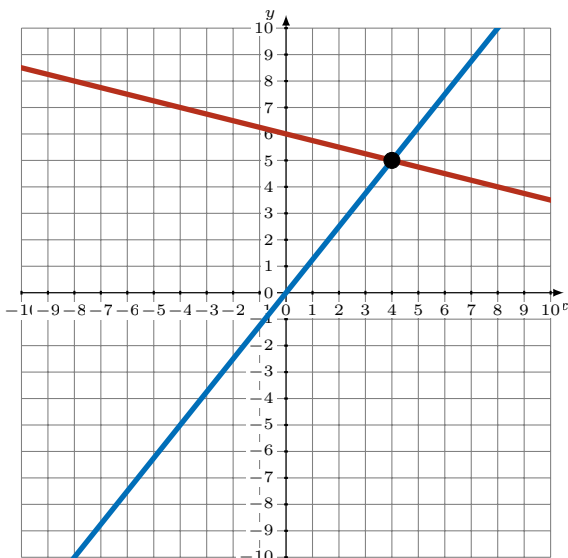
Graph each system and identify its solution.

1. $y = \frac{1}{9}x + 8$
 $8x - 9y = -45$



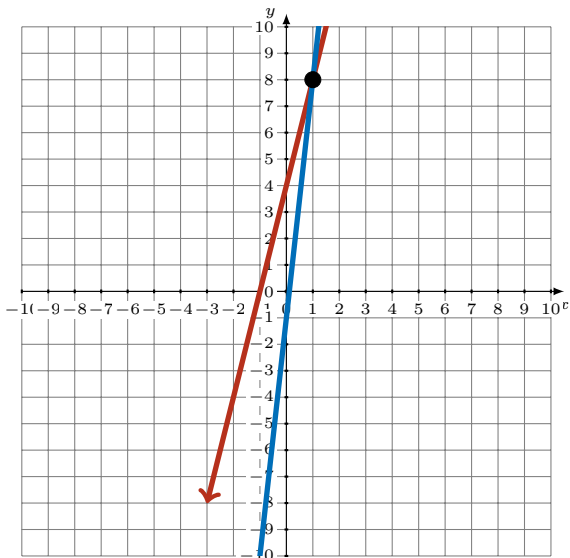
Solution: $(-9, -3)$

2. $x + 4y = 24$
 $5x - 4y = 0$



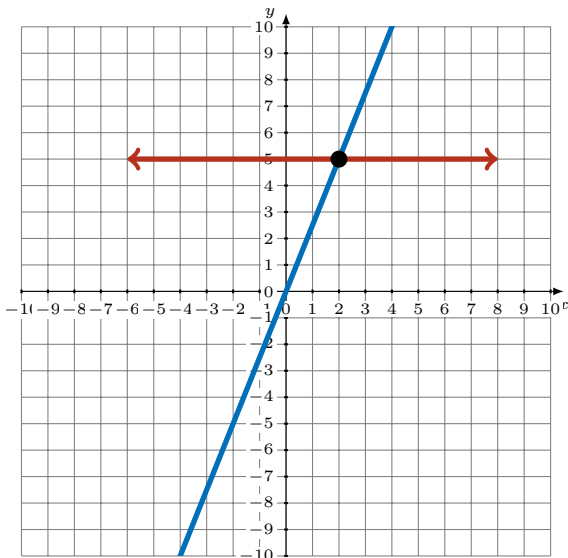
Solution: $(4, 5)$

3. $4x - y = -4$
 $9x - y = 1$



Solution: $(1, 8)$

4. $y = 5$
 $5x - 2y = 0$

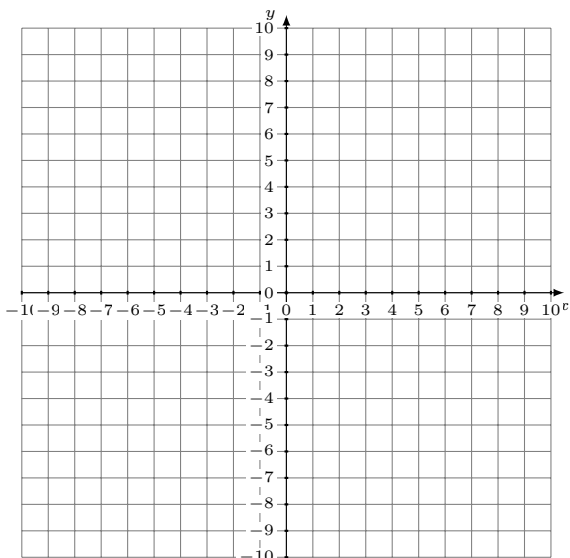


Solution: $(2, 5)$

Graphing Linear Systems (E)

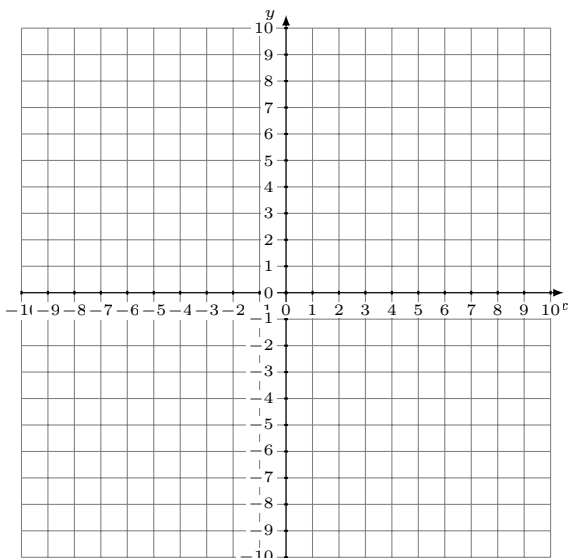
Graph each system and identify its solution.

1. $y = -\frac{1}{2}x + 2$
 $5x + 8y = 8$



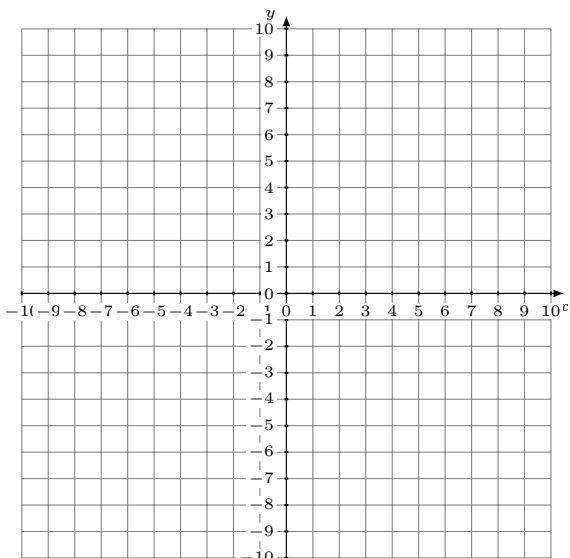
Solution: (____,____)

2. $x + y = 8$
 $2x - 3y = -9$



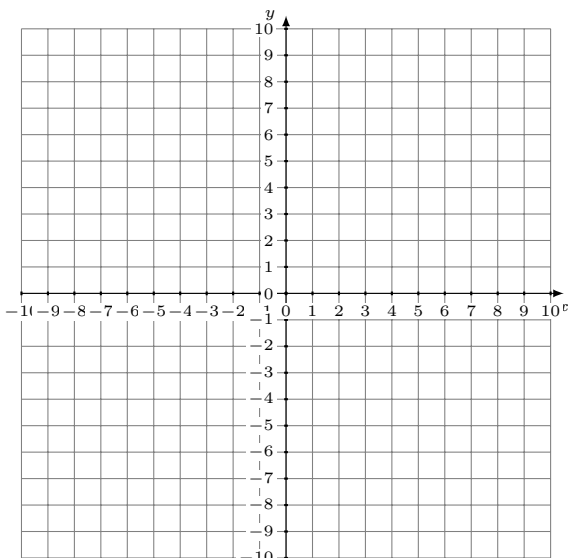
Solution: (____,____)

3. $x + 4y = -28$
 $9x + 8y = 0$



Solution: (____,____)

4. $y = x - 6$
 $3x - 2y = 10$

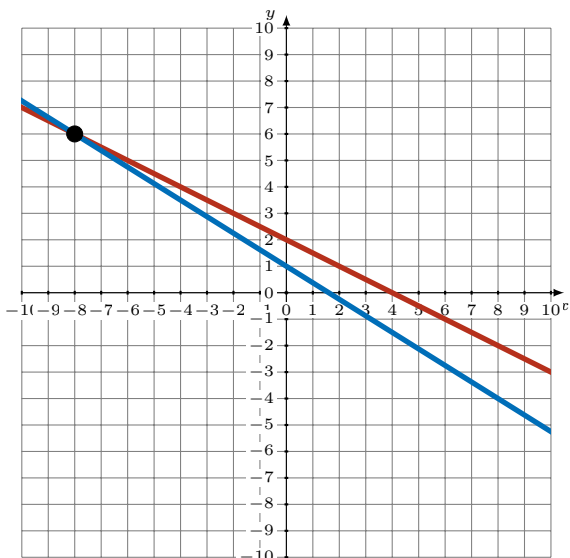


Solution: (____,____)

Graphing Linear Systems (E) Answers

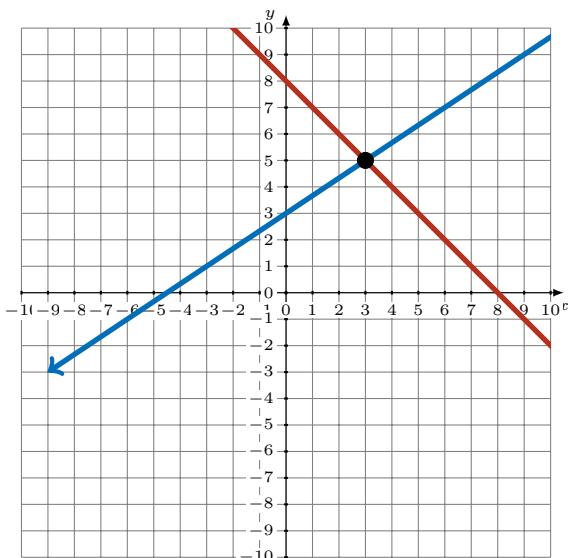
Graph each system and identify its solution.

1. $y = -\frac{1}{2}x + 2$
 $5x + 8y = 8$



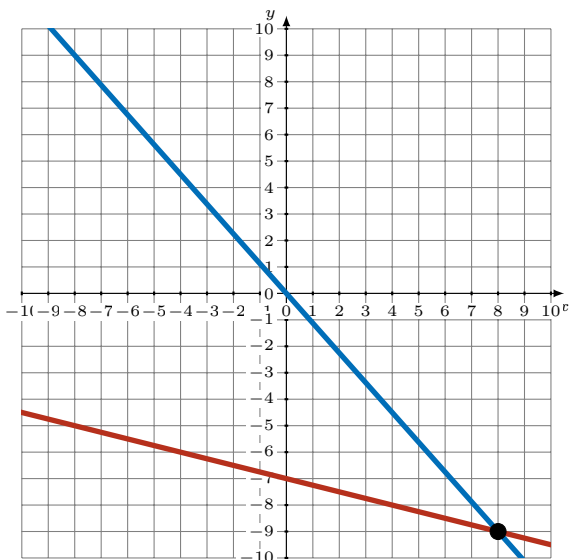
Solution: $(-8, 6)$

2. $x + y = 8$
 $2x - 3y = -9$



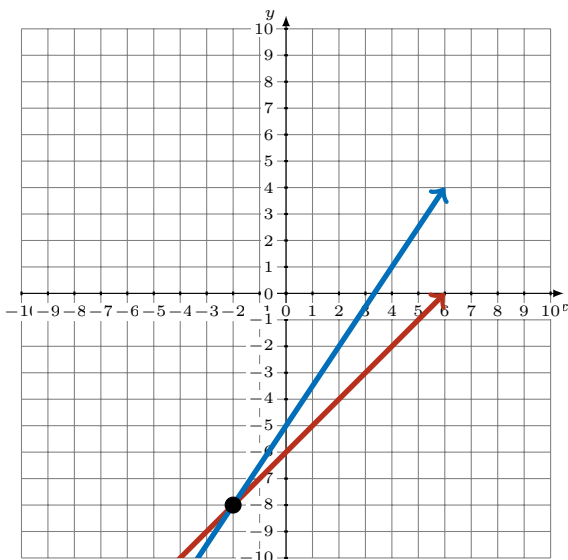
Solution: $(3, 5)$

3. $x + 4y = -28$
 $9x + 8y = 0$



Solution: $(8, -9)$

4. $y = x - 6$
 $3x - 2y = 10$



Solution: $(-2, -8)$